



August 13, 2018

Reference No. 038443

Ms. Leslie Patterson
Remedial Project Manager
United States Environmental Protection Agency
Region V
77 West Jackson Boulevard
Mail Code SR-6J
Chicago, Illinois
60604

Ms. Tamara McPeek
Environmental Response and Revitalization
Ohio Environmental Protection Agency
Southwest District Office
401 East Fifth Street
Dayton, Ohio
45402

Dear Ms. Patterson and Ms. McPeek:

**Re: Phase 1B Groundwater Sampling Results
South Dayton Dump and Landfill Site, Moraine, Ohio (Site)**

This letter provides the results for the Phase 1B groundwater sampling conducted using temporary monitoring wells at the South Dayton Dump and Landfill Site (Site) and vicinity during May 2018. GHD has prepared this letter on behalf of the Respondents to the Administrative Settlement Agreement and Order on Consent (ASAOC) for Remedial Investigation/Feasibility Study (RI/FS) of the Site, Docket No. V-W-16-C-011 (Respondents).

A total of 14 borehole/ temporary monitoring well (TMW) locations were completed from May 7 to 18, 2018 as described in the Remedial Investigation/Feasibility Study (RI/FS) Work Plan for Operable Units 1 and 2 (RI/FS Work Plan). A further six locations proposed in the RI/FS Work Plan remain to be completed in 2018. The 14 completed TMW locations include, in sequence, the following:

- BH03-18, completed on May 7, 2018
- BH01-18, BH02-18, and BH04-18, completed on May 8, 2018
- BH05-18, BH06-18, and BH07-18, completed on May 10, 2018
- BH08-18 and BH10-18, completed on May 11, 2018
- BH09-18 and BH14-18 completed on May 14, 2018
- BH20-18 completed on May 15, 2018
- BH12-18 and BH13-18, completed on May 18, 2018



The borehole/TMW locations are shown on Figure 1a (northern area), Figure 1b (central area), Figure 1c (southern area), and Figure 1d (Dayton Power & light), included in Attachment 1. The figures show investigative locations completed to date and the remaining proposed locations per the RI/FS Work Plan. The logs for each borehole/TMW location are included in Attachment 2. Each borehole/TMW location was completed to the depth required by the RI/FS Work Plan, with exceptions as noted below.

Information regarding field activities and sample collection is provided by the following:

- Drilling was conducted by Frontz Drilling, Inc. using direct push technology (DPT) methods, with field oversight by GHD. The soil core retrieved from each location was logged to determine stratigraphy to the required depth, ranging from 28 to 44 feet below ground surface (bgs). The soil boring was sealed using bentonite chips.
- At each location a second off-set boring was advanced to install a temporary monitoring well, constructed with a 4-foot steel screen set at the desired depth based on stratigraphic information.
- Low flow purging was completed using a bladder pump with Teflon tubing, and with the pump intake set at the middle of each sampling interval (middle of 4-foot screen). Field parameters were recorded to determine stabilization before sampling. The field parameters included dissolved oxygen (DO), oxidation reduction potential (ORP), pH, temperature, specific conductance, and turbidity. Purging and stabilization data are summarized in Table 1.
- Groundwater samples were collected from each temporary monitoring well, with the exception of BH14-18, where a sample was not collected due to pumping limitations. GHD proposes to resample this location using alternate drilling methods, e.g., Rotosonic.
- GHD submitted a total of 13 investigative groundwater samples plus quality assurance/ quality control (QA/QC) samples (including 7 trip blanks, 2 field duplicates, 2 equipment blanks, and 1 matrix spike/ matrix spike duplicate samples) to TestAmerica Laboratories in North Canton, Ohio for analysis parameters required by the RI/FS Work Plan. These parameters include the following: Volatile Organic Compounds (VOCs); Semi-volatile Organic Compounds (SVOCs); Pesticides and polychlorinated biphenyls (PCBs); Herbicides; Metals (total and dissolved) and cyanide; and general chemistry (chloride, nitrate, nitrite, sulfate).
- All investigative samples were analyzed for VOCs, metals (total and dissolved) and general chemistry parameters. Select samples were analyzed for the other parameters listed above in accordance with the RI/FS Work Plan.
- Sampling and analysis activities were conducted consistent with the project-specific Field Sampling Plan and Quality Assurance Project Plan.
- Purge water was containerized for management as investigation-derived waste (IDW) in the on-site frac tank.

The validated analytical results are summarized in Table 2a (full set of results) and Table 2b (summary of detected results). It is noted that SVOCs, pesticides, PCBs, and herbicides were not detected in any



samples, as shown in the tables. Test America laboratory analytical reports and GHD data validation reports are available on request.

The type and range of detected chemical concentrations are similar to other available data and do not suggest any changes are needed to the groundwater investigation approach described in the RI/FS Work Plan. The data will be incorporated into the project database for inclusion in the RI reporting deliverables. Further data interpretation and comparison to criteria values will be conducted as part of the overall data assessment, pending completion of the remaining proposed Phase 1B and Phase 2A sampling activities.

Should you have any questions on the above, please do not hesitate to contact us.

Sincerely,

GHD

A handwritten signature in blue ink that reads "Julian Hayward". The signature is fluid and cursive, with "Julian" on top and "Hayward" below it.

Julian Hayward

JH/cb/4

Encl.

cc: (all by pdf) Ken Brown, ITW
 Bryan Heath, NCR
 Wendell Barner, Barner Consulting
 Jim Campbell, EMI
 Brett Fishwild, Jacobs
 Valerie Chan, GHD

Table 1

Stabilization Parameters - May 2018
South Dayton Dump and Landfill Site
Moraine, Ohio

Location	Date	Sample ID	Screened Interval (ft bgs)	Time	Flow Rate (mL/min)	Temperature (°C)	Conductivity (mS/cm)	Turbidity (NTU)	DO (mg/L)	pH	ORP (mV)
BH03-18	5/7/2018	WG-38443-050718-GL-001	27.5-31.5	15:02	200	15.28	1.349	>1000	3.31	6.67	118.6
				15:07	200	14.86	1.344	>1000	2.18	6.70	133.4
				15:12	200	14.33	1.341	843	1.50	6.74	148.8
				15:17	200	14.29	1.337	576	1.27	6.76	155.0
				15:22	200	14.26	1.335	310	1.16	6.80	151.8
				15:27	200	14.23	1.331	172	1.32	6.82	161.3
BH02-18	5/8/2018	WG-38443-050818-GL-002	27.5-31.5	8:55	200	12.93	1.473	>1000	1.45	6.52	92.9
				9:00	200	12.78	1.471	>1000	1.21	6.52	84.1
				9:05	200	12.61	1.463	>1000	1.18	6.61	75.2
				9:10	200	12.44	1.458	>1000	1.27	6.67	70.8
				9:15	200	12.47	1.454	849	1.18	6.67	70.3
				9:20	200	12.51	1.449	663	1.25	6.69	70.5
BH01-18	5/8/2018	WG-38443-050818-GL-003 WG-38443-050818-GL-004	26-30	9:25	200	12.54	1.446	500	1.27	6.69	71.2
				10:19	200	14.01	1.247	>1000	0.87	6.89	191.2
				10:24	200	13.82	1.238	>1000	1.01	6.82	178.5
				10:29	200	13.75	1.230	>1000	0.86	6.79	169.5
				10:34	200	13.79	1.224	>1000	0.89	6.77	172.9
				10:39	200	13.80	1.217	958	0.78	6.77	178.0
BH04-18	5/8/2018	WG-38443-050818-GL-005	25.6-29.5	10:44	200	13.72	1.212	737	0.78	6.76	180.1
				10:49	200	13.65	1.206	405	0.80	6.76	181.3
				10:54	200	13.70	1.198	232	0.84	6.75	179.2
				10:59	200	13.69	1.194	151	0.86	6.76	178.7
				11:04	200	13.71	1.191	132	0.87	6.75	177.7
				13:51	200	17.69	1.472	>1000	1.51	6.56	191.6
BH06-18	5/10/2018	WG-38443-051018-GL-007	28-32	13:56	200	17.50	1.466	>1000	1.41	6.58	194.3
				14:01	200	17.34	1.463	>1000	1.35	6.59	197.0
				14:06	200	17.45	1.445	736	1.3	6.61	198.1
				14:11	200	17.79	1.432	370	1.29	6.63	198.2
				14:16	200	18.27	1.420	180	1.27	6.63	194.6
				14:21	200	18.51	1.420	129	1.29	6.64	190.1
BH07-18	5/10/2018	WG-38443-051018-GL-008	28-32	14:26	200	18.46	1.418	178	1.28	6.64	189.0
				8:59	200	19.05	1.855	>1000	0.59	7.10	264.1
				9:04	200	18.77	1.853	>1000	0.49	7.14	273.5
				9:09	200	18.65	1.849	>1000	0.48	7.17	280.2
				9:14	200	18.67	1.847	455	0.57	7.19	284.4
				9:19	200	18.59	1.846	173	0.81	7.20	286.3
BH05-18	5/10/2018	WG-38443-051018-GL-009	27.5-31.5	9:24	200	18.60	1.846	126	0.68	7.21	287.3
				10:39	200	15.69	1.827	>1000	0.50	6.90	305.1
				10:44	200	15.55	1.821	>1000	0.45	6.88	302.5
				10:49	200	15.23	1.815	>1000	0.40	6.88	297.3
				10:54	200	15.12	1.797	>1000	0.41	6.88	294.0
				10:59	200	15.28	1.793	762	0.45	6.89	292.5
				11:04	200	15.34	1.788	512	0.46	6.90	290.8
				11:09	200	15.30	1.785	364	0.49	6.91	288.8
				12:04	200	17.77	1.679	>1000	0.70	7.14	299.4
				12:09	200	17.60	1.672	>1000	0.58	7.12	299.3
				12:14	200	17.63	1.662	406	0.55	7.11	299.4
				12:19	200	17.47	1.659	183	0.55	7.09	300.6
				12:24	200	17.43	1.651	89.2	0.54	7.09	301.7
				12:29	200	17.37	1.647	63.9	0.54	7.08	301.7
				12:34	200	17.34	1.647	58.8	0.53	7.08	301.8

Table 1

Stabilization Parameters - May 2018
South Dayton Dump and Landfill Site
Moraine, Ohio

BH08-18	5/11/2018	WG-38443-051118-GL-010	22.3-26.3	8:54 8:59 9:04 9:09 9:14 9:19 9:24 9:29	200 200 200 200 200 200 200 200	18.14 17.96 17.70 17.45 17.30 17.18 16.91 16.88	1.444 1.453 1.447 1.439 1.432 1.429 1.429 1.425	>1000 >1000 >1000 >1000 >1000 396 202 171	0.34 0.33 0.48 0.59 0.56 0.53 0.51 0.50	6.58 6.63 6.65 6.64 6.62 6.63 6.63 6.63	246.0 246.0 245.4 246.0 246.8 246.5 242.7 243.6
BH10-18	5/11/2018	WG-38443-051118-GL-011	38-42	12:59 13:04 13:09 13:14 13:19 13:24 13:29 13:34 13:39	300 300 300 300 300 300 300 300 300	19.33 18.30 17.69 17.34 17.09 17.04 16.90 16.92 17.04	1.693 1.671 1.658 1.642 1.646 1.644 1.645 1.644 1.645	>1000 >1000 >1000 >1000 428 150 109 73.0 54.4	0.18 0.17 0.22 0.27 0.29 0.32 0.33 0.34 0.34	7.00 6.83 6.79 6.77 6.77 6.78 6.79 6.79 6.80	39.1 1.6 2.8 24.4 36.1 42.0 46.2 47.2 44.8
BH09-18	5/14/2018	WG-38443-051418-GL-012	21.5-25.5	12:41 12:46 12:51 12:56 13:01 13:06 13:11 13:16 13:21	250 250 250 250 250 250 250 250 250	17.36 17.05 16.57 16.19 15.98 16.83 17.05 17.07 17.00	1.214 1.218 1.220 1.223 1.220 1.220 1.221 1.223 1.221	>1000 >1000 236 185 261 92.6 46.0 28.8 20.9	0.14 0.17 0.21 0.27 0.29 0.40 0.39 0.38 0.37	6.55 6.64 6.75 6.79 6.80 6.85 6.89 6.93 6.94	-76.8 -81.2 -83.1 -86.8 -85.7 -88.5 -88.9 -90.0 -91.1
BH20-18	5/15/2018	WG-38443-051518-GL-013 WG-38443-051518-GL-014	27.3-31.3	8:15 8:20 8:25 8:30	200 200 200 200	17.21 17.02 17.18 17.17	1.738 1.730 1.729 1.731	124 66.1 48.3 33.7	0.84 0.69 0.95 0.87	6.55 6.61 6.67 6.70	-63.4 -60.8 -69.3 -71.8
BH13-18	5/18/2018	WG-38443-051818-GL-015	30.5-34.5	10:49 10:54 10:59 11:04 11:09 11:14 11:19 11:24 11:29 11:34	200 200 200 200 200 200 200 200 200 200	17.61 17.04 16.52 16.06 16.08 16.11 16.07 15.97 16.11 16.20	1.548 1.609 1.625 1.625 1.618 1.623 1.624 1.623 1.621 1.625	>1000 >1000 >1000 >1000 936 271 167 95.6 63.8 45.6	0.21 0.30 0.48 0.51 0.55 0.62 0.69 0.81 0.78 0.80	6.76 6.77 6.79 6.79 6.80 6.83 6.84 6.86 6.88 6.89	115.3 84.1 55.2 41.0 36.7 30.3 27.6 23.4 22.0 21.6
BH12-18	5/18/2018	WG-38443-051818-GL-016	30.5-34.5	12:49 12:54 12:59 13:04 13:09 13:14 13:19 13:24	200 200 200 200 200 200 200 200	17.12 16.14 15.92 15.87 15.78 15.73 15.64 15.68	1.680 1.670 1.653 1.644 1.641 1.639 1.638 1.334	>1000 >1000 394 127.0 70.4 35.6 21.4 18.7	1.28 0.90 0.69 0.54 0.51 0.49 0.45 0.47	6.97 6.90 6.84 6.82 6.81 6.81 6.80 6.79	35.6 35.9 39.0 43.4 47.3 50.5 52.6 53.5

Notes:

°C Degrees Celsius
 DO Dissolved Oxygen
 ft bgs feet below ground surface
 mS/cm milli-Siemens/cm
 mV millivolts
 NTU Nephelometric Turbidity Unit
 ORP Oxidation Reduction Potential

Table 2A

Summary of Analytical Results
Groundwater Sampling
South Dayton Dump and Landfill Site
Moraine, Ohio

Sample Location:	BH01-18	BH01-18	BH02-18	BH03-18	BH04-18	BH05-18	BH06-18	BH07-18	BH08-18
Sample ID:	WG-38443-050818-GL-003	WG-38443-050818-GL-004	WG-38443-050818-GL-002	WG-38443-050718-GL-001	WG-38443-050818-GL-005	WG-38443-051018-GL-009	WG-38443-051018-GL-007	WG-38443-051018-GL-008	WG-38443-051118-GL-010
Sample Date:	5/8/2018	5/8/2018	Duplicate	5/7/2018	5/8/2018	5/10/2018	5/10/2018	5/10/2018	5/11/2018
Parameters	Units								
Volatiles									
1,1,1-Trichloroethane	ug/L	0.23 U	0.23 U	1.0	3.7	0.23 U	0.23 U	0.23 U	0.23 U
1,1,2,2-Tetrachloroethane	ug/L	0.32 U							
1,1,2-Trichloroethane	ug/L	0.34 U							
1,1-Dichloroethane	ug/L	0.25 U	0.25 U	0.25 U	1.8	0.25 U	0.25 U	0.30 J	0.25 U
1,1-Dichloroethene	ug/L	0.27 U							
1,2,4-Trichlorobenzene	ug/L	0.27 U							
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	0.0086 U							
1,2-Dibromoethane (Ethylene dibromide)	ug/L	0.0087 U							
1,2-Dichlorobenzene	ug/L	0.26 U							
1,2-Dichloroethane	ug/L	0.30 U							
1,2-Dichloropropane	ug/L	0.30 U							
1,3-Dichlorobenzene	ug/L	0.32 U							
1,4-Dichlorobenzene	ug/L	0.23 U							
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	1.0 U							
2-Hexanone	ug/L	1.2 U							
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	ug/L	0.71 U							
Acetone	ug/L	1.8 U	1.8 U	1.8 U	290 U	1.8 U	1.8 U	1.8 U	1.8 U
Benzene	ug/L	0.28 U							
Bromodichloromethane	ug/L	0.30 U							
Bromoform	ug/L	0.43 U							
Bromomethane (Methyl bromide)	ug/L	0.42 U							
Carbon disulfide	ug/L	0.34 U							
Carbon tetrachloride	ug/L	0.35 U							
Chlorobenzene	ug/L	0.32 U							
Chloroethane	ug/L	0.41 U							
Chloroform (Trichloromethane)	ug/L	0.31 U							
Chloromethane (Methyl chloride)	ug/L	0.43 U							
cis-1,2-Dichloroethene	ug/L	0.30 U	0.30 U	0.30 U	1.7	0.30 U	0.93 J	1.4	0.30 U
cis-1,3-Dichloropropene	ug/L	0.26 U							
Cyclohexane	ug/L	0.44 U							
Dibromochloromethane	ug/L	0.25 U							
Dichlorodifluoromethane (CFC-12)	ug/L	0.50 U							
Ethylbenzene	ug/L	0.26 U							
Isopropyl benzene	ug/L	0.21 U							
m&p-Xylenes	ug/L	0.24 U							
Methyl acetate	ug/L	1.4 U							
Methyl cyclohexane	ug/L	0.45 U							
Methyl tert butyl ether (MTBE)	ug/L	0.27 U							
Methylene chloride	ug/L	0.53 U							
o-Xylene	ug/L	0.28 U							
Styrene	ug/L	0.23 U							
Tetrachloroethene	ug/L	0.30 U	0.30 U	0.30 U	0.79 J	0.30 U	0.30 U	0.30 U	0.55 J
Toluene	ug/L	0.48 J	0.44 J	0.27 J	0.23 U	0.35 J	0.31 J	0.23 U	0.23 U
trans-1,2-Dichloroethene	ug/L	0.29 U							
trans-1,3-Dichloropropene	ug/L	0.31 U							
Trichloroethene	ug/L	0.33 U	0.33 U	0.52 U	12	0.33 U	0.53 J	0.33 U	4.1
Trichlorofluoromethane (CFC-11)	ug/L	0.50 U							
Trifluorotrichloroethane (CFC-113)	ug/L	0.41 U							
Vinyl chloride	ug/L	0.45 U							
Xylenes (total)	ug/L	0.24 U							

Table 2A

Summary of Analytical Results
Groundwater Sampling
South Dayton Dump and Landfill Site
Moraine, Ohio

Sample Location:	BH01-18	BH01-18	BH02-18	BH03-18	BH04-18	BH05-18	BH06-18	BH07-18	BH08-18
Sample ID:	WG-38443-050818-GL-003	WG-38443-050818-GL-004	WG-38443-050818-GL-002	WG-38443-050718-GL-001	WG-38443-050818-GL-005	WG-38443-051018-GL-009	WG-38443-051018-GL-007	WG-38443-051018-GL-008	WG-38443-051118-GL-010
Sample Date:	5/8/2018	5/8/2018	5/8/2018	5/7/2018	5/8/2018	5/10/2018	5/10/2018	5/10/2018	5/11/2018
Parameters	Units								
Semi-Volatiles									
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	ug/L	-	-	-	-	-	-	-	0.40 U
2,4,5-Trichlorophenol	ug/L	-	-	-	-	-	-	-	0.30 U
2,4,6-Trichlorophenol	ug/L	-	-	-	-	-	-	-	0.24 U
2,4-Dichlorophenol	ug/L	-	-	-	-	-	-	-	0.19 U
2,4-Dimethylphenol	ug/L	-	-	-	-	-	-	-	0.25 U
2,4-Dinitrophenol	ug/L	-	-	-	-	-	-	-	0.32 U
2,4-Dinitrotoluene	ug/L	-	-	-	-	-	-	-	0.25 U
2,6-Dinitrotoluene	ug/L	-	-	-	-	-	-	-	0.81 U
2-Chloronaphthalene	ug/L	-	-	-	-	-	-	-	0.10 U
2-Chlorophenol	ug/L	-	-	-	-	-	-	-	0.29 U
2-Methylnaphthalene	ug/L	-	-	-	-	-	-	-	0.091 U
2-Methylphenol	ug/L	-	-	-	-	-	-	-	0.17 U
2-Nitroaniline	ug/L	-	-	-	-	-	-	-	0.21 U
2-Nitrophenol	ug/L	-	-	-	-	-	-	-	0.28 U
3&4-Methylphenol	ug/L	-	-	-	-	-	-	-	0.81 U
3,3'-Dichlorobenzidine	ug/L	-	-	-	-	-	-	-	0.37 U
3-Nitroaniline	ug/L	-	-	-	-	-	-	-	0.28 U
4,6-Dinitro-2-methylphenol	ug/L	-	-	-	-	-	-	-	2.4 U
4-Bromophenyl phenyl ether	ug/L	-	-	-	-	-	-	-	0.22 U
4-Chloro-3-methylphenol	ug/L	-	-	-	-	-	-	-	0.21 U
4-Chloroaniline	ug/L	-	-	-	-	-	-	-	0.21 U
4-Chlorophenyl phenyl ether	ug/L	-	-	-	-	-	-	-	0.30 U
4-Nitroaniline	ug/L	-	-	-	-	-	-	-	0.22 U
4-Nitrophenol	ug/L	-	-	-	-	-	-	-	0.29 U
Acenaphthene	ug/L	-	-	-	-	-	-	-	0.045 U
Acenaphthylene	ug/L	-	-	-	-	-	-	-	0.049 U
Acetophenone	ug/L	-	-	-	-	-	-	-	0.34 U
Anthracene	ug/L	-	-	-	-	-	-	-	0.089 U
Atrazine	ug/L	-	-	-	-	-	-	-	0.34 U
Benzaldehyde	ug/L	-	-	-	-	-	-	-	0.39 U
Benzo(a)anthracene	ug/L	-	-	-	-	-	-	-	0.030 U
Benzo(a)pyrene	ug/L	-	-	-	-	-	-	-	0.052 U
Benzo(b)fluoranthene	ug/L	-	-	-	-	-	-	-	0.040 U
Benzo(g,h,i)perylene	ug/L	-	-	-	-	-	-	-	0.047 U
Benzo(k)fluoranthene	ug/L	-	-	-	-	-	-	-	0.045 U
Biphenyl (1,1-Biphenyl)	ug/L	-	-	-	-	-	-	-	0.13 U
bis(2-Chloroethoxy)methane	ug/L	-	-	-	-	-	-	-	0.32 U
bis(2-Chloroethyl)ether	ug/L	-	-	-	-	-	-	-	0.10 U
bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	-	-	-	-	-	-	-	1.7 U
Butyl benzylphthalate (BBP)	ug/L	-	-	-	-	-	-	-	0.26 U
Caprolactam	ug/L	-	-	-	-	-	-	-	0.20 U
Carbazole	ug/L	-	-	-	-	-	-	-	0.28 U
Chrysene	ug/L	-	-	-	-	-	-	-	0.051 U
Dibenz(a,h)anthracene	ug/L	-	-	-	-	-	-	-	0.045 U
Dibenzo furan	ug/L	-	-	-	-	-	-	-	0.020 U
Diethyl phthalate	ug/L	-	-	-	-	-	-	-	0.61 U
Dimethyl phthalate	ug/L	-	-	-	-	-	-	-	0.29 U
Di-n-butylphthalate (DBP)	ug/L	-	-	-	-	-	-	-	1.7 U
Di-n-octyl phthalate (DnOP)	ug/L	-	-	-	-	-	-	-	0.23 U
Fluoranthene	ug/L	-	-	-	-	-	-	-	0.045 U
Fluorene	ug/L	-	-	-	-	-	-	-	0.041 U
Hexachlorobenzene	ug/L	-	-	-	-	-	-	-	0.086 U
Hexachlorobutadiene	ug/L	-	-	-	-	-	-	-	0.27 U
Hexachlorocyclopentadiene	ug/L	-	-	-	-	-	-	-	0.24 U
Hexachloroethane	ug/L	-	-	-	-	-	-	-	0.19 U
Indeno(1,2,3-cd)pyrene	ug/L	-	-	-	-	-	-	-	0.044 U
Isophorone	ug/L	-	-	-	-	-	-	-	0.27 U
Naphthalene	ug/L	-	-	-	-	-	-	-	0.063 U
Nitrobenzene	ug/L	-	-	-	-	-	-	-	0.040 U
N-Nitrosodi-n-propylamine	ug/L	-	-	-	-	-	-	-	0.24 U
N-Nitrosodiphenylamine	ug/L	-	-	-	-	-	-	-	0.31 U
Pentachlorophenol	ug/L	-	-	-	-	-	-	-	0.27 U

Table 2A

Summary of Analytical Results
Groundwater Sampling
South Dayton Dump and Landfill Site
Moraine, Ohio

Sample Location:	BH01-18	BH01-18	BH02-18	BH03-18	BH04-18	BH05-18	BH06-18	BH07-18	BH08-18
Sample ID:	WG-38443-050818-GL-003	WG-38443-050818-GL-004	WG-38443-050818-GL-002	WG-38443-050718-GL-001	WG-38443-050818-GL-005	WG-38443-051018-GL-009	WG-38443-051018-GL-007	WG-38443-051018-GL-008	WG-38443-051118-GL-010
Sample Date:	5/8/2018	5/8/2018	Duplicate	5/7/2018	5/8/2018	5/10/2018	5/10/2018	5/10/2018	5/11/2018
Parameters									
Phenanthrene	ug/L	-	-	-	-	-	-	-	0.063 U
Phenol	ug/L	-	-	-	-	-	-	-	0.61 U
Pyrene	ug/L	-	-	-	-	-	-	-	0.042 U
Metals									
Aluminum	ug/L	540	530	5700	790	430	2200 U	5000	3200
Aluminum (dissolved)	ug/L	34 U	34 U	260	51	2200 U	2200 U	2200 U	1100
Antimony	ug/L	0.57 U	0.57 U	1.8 J	1.3 J	0.57 U	1.1 U	0.57 U	0.57 U
Antimony (dissolved)	ug/L	0.57 U	0.57 U	0.89 J	0.86 J	0.57 U	0.57 U	0.57 U	0.57 U
Arsenic	ug/L	0.95 J	1.1 J	11	0.75 U	0.75 U	2.4 U	5.9	2.9 U
Arsenic (dissolved)	ug/L	0.75 U	0.75 U	1.2 J	0.75 U	0.75 U	2.4 U	0.75 U	7.3
Barium	ug/L	170	170	360	250	170	180	280	190
Barium (dissolved)	ug/L	160	170	220	220	170	140	110	140
Beryllium	ug/L	0.33 J	0.31 U	0.81 J	0.35 J	0.31 U	0.31 U	0.53 U	0.52 U
Beryllium (dissolved)	ug/L	0.31 U							
Cadmium	ug/L	0.21 U	0.21 U	0.68 J	0.31 J	0.21 U	0.21 U	0.21 U	0.21 U
Cadmium (dissolved)	ug/L	0.21 U	0.21 J	0.21 U	0.21 U	0.21 U	0.38 U	0.21 U	0.21 U
Calcium	ug/L	200000	210000	240000	170000	230000	200000	150000	300000
Calcium (dissolved)	ug/L	200000	210000	210000	160000	220000	190000	120000	280000
Chromium	ug/L	1.6 J	1.6 J	18	3.2	1.4 J	30 U	30 U	2.6
Chromium (dissolved)	ug/L	0.98 U	0.98 U	1.4 J	1.5 J	0.98 U	0.98 U	0.98 U	2.9
Cobalt	ug/L	1.1	1.1	4.4	2.4	1.0	3.2 U	9.0	2.8 U
Cobalt (dissolved)	ug/L	0.76 J	0.95 J	1.4	1.6	0.71 J	2.8 U	4.9	4.7
Copper	ug/L	4.5	2.8 J	330	11	1.7 U	52 U	52 U	3.3 J
Copper (dissolved)	ug/L	4.0	5.1 J	39	9.1	1.7 U	52 U	52 U	6.3 J
Iron	ug/L	1300	1300	15000	2400	1400	7300 U	10000	7300 U
Iron (dissolved)	ug/L	340	350	2100	740	610	7300 U	7300 U	4100 J
Lead	ug/L	0.45 U	0.45 U	24	1.2	0.45 U	6.6	4.3 U	3.8 U
Lead (dissolved)	ug/L	0.45 U	0.45 U	2.1	0.45 J	0.45 U	0.45 U	0.45 U	1.5
Magnesium	ug/L	42000	42000	77000	80000	48000	86000	120000	67000
Magnesium (dissolved)	ug/L	41000	42000	63000	74000	43000	84000	110000	55000
Manganese	ug/L	220	240	1700	280	120	540	1300	220 U
Manganese (dissolved)	ug/L	170	180	430	160	87	480	1200	200 U
Mercury	ug/L	0.13 U							
Mercury (dissolved)	ug/L	0.13 U							
Nickel	ug/L	6.6	7.1	40	18	8.3	32 U	32 U	7.3 J
Nickel (dissolved)	ug/L	5.5	6.0	20	13	8.1	32 U	32 U	14 J
Potassium	ug/L	1300	1300	8600	14000	1600	18000	26000	3500 U
Potassium (dissolved)	ug/L	1100	1200	7100	14000	1600	18000	24000	3300 U
Selenium	ug/L	8.6	8.8	15	7.0	25	2.3 U	1.4 U	2.9 U
Selenium (dissolved)	ug/L	9.0	9.2	15	6.5	26	2.4 U	0.89 U	2.5 U
Silver	ug/L	0.053 U	0.053 U	0.17 J	0.053 U	0.053 U	0.053 U	0.053 U	0.072 J
Silver (dissolved)	ug/L	0.053 U	0.054 J						
Sodium	ug/L	11000	11000	32000	29000	39000	52000	100000	46000
Sodium (dissolved)	ug/L	12000	12000	31000	28000	40000	55000	100000	43000
Thallium	ug/L	0.20 U	0.20 U	0.66 J	0.30 J	0.20 U	0.20 U	0.60 U	0.20 U
Thallium (dissolved)	ug/L	0.20 U	0.20 U	0.21 J	0.21 J	0.20 U	0.20 U	0.39 U	0.20 U
Vanadium	ug/L	1.4 J	1.3 J	13	2.0 J	1.4 J	5.8 U	14	7.5 U
Vanadium (dissolved)	ug/L	0.82 U	2.8 J						
Zinc	ug/L	15 U	15 U	310	17 J	15 U	170 U	170 U	20 J
Zinc (dissolved)	ug/L	15 U	15 U	43	15 U	15 U	170 U	170 U	34 J
PCBs									
Aroclor-1016 (PCB-1016)	ug/L	-	-	-	-	-	-	-	0.056 U
Aroclor-1221 (PCB-1221)	ug/L	-	-	-	-	-	-	-	0.057 U
Aroclor-1232 (PCB-1232)	ug/L	-	-	-	-	-	-	-	0.074 U
Aroclor-1242 (PCB-1242)	ug/L	-	-	-	-	-	-	-	0.076 U
Aroclor-1248 (PCB-1248)	ug/L	-	-	-	-	-	-	-	0.050 U
Aroclor-1254 (PCB-1254)	ug/L	-	-	-	-	-	-	-	0.040 U
Aroclor-1260 (PCB-1260)	ug/L	-	-	-	-	-	-	-	0.046 U

Table 2A

Summary of Analytical Results
Groundwater Sampling
South Dayton Dump and Landfill Site
Moraine, Ohio

Sample Location:	BH01-18	BH01-18	BH02-18	BH03-18	BH04-18	BH05-18	BH06-18	BH07-18	BH08-18
Sample ID:	WG-38443-050818-GL-003	WG-38443-050818-GL-004	WG-38443-050818-GL-002	WG-38443-050718-GL-001	WG-38443-050818-GL-005	WG-38443-051018-GL-009	WG-38443-051018-GL-007	WG-38443-051018-GL-008	WG-38443-051118-GL-010
Sample Date:	5/8/2018	5/8/2018	5/8/2018	5/7/2018	5/8/2018	5/10/2018	5/10/2018	5/10/2018	5/11/2018
Parameters		Units							
Herbicides									
2,4,5-T	ug/L	-	-	-	-	-	-	-	-
2,4,5-TP (Silvex)	ug/L	-	-	-	-	-	-	-	-
2,4-Dichlorophenoxyacetic acid (2,4-D)	ug/L	-	-	-	-	-	-	-	-
Pesticides									
4,4'-DDD	ug/L	-	-	-	-	-	-	-	-
4,4'-DDE	ug/L	-	-	-	-	-	-	-	-
4,4'-DDT	ug/L	-	-	-	-	-	-	-	-
Aldrin	ug/L	-	-	-	-	-	-	-	-
alpha-BHC	ug/L	-	-	-	-	-	-	-	-
alpha-Chlordane	ug/L	-	-	-	-	-	-	-	-
beta-BHC	ug/L	-	-	-	-	-	-	-	-
delta-BHC	ug/L	-	-	-	-	-	-	-	-
Dieldrin	ug/L	-	-	-	-	-	-	-	-
Endosulfan I	ug/L	-	-	-	-	-	-	-	-
Endosulfan II	ug/L	-	-	-	-	-	-	-	-
Endosulfan sulfate	ug/L	-	-	-	-	-	-	-	-
Endrin	ug/L	-	-	-	-	-	-	-	-
Endrin aldehyde	ug/L	-	-	-	-	-	-	-	-
Endrin ketone	ug/L	-	-	-	-	-	-	-	-
gamma-BHC (lindane)	ug/L	-	-	-	-	-	-	-	-
gamma-Chlordane	ug/L	-	-	-	-	-	-	-	-
Heptachlor	ug/L	-	-	-	-	-	-	-	-
Heptachlor epoxide	ug/L	-	-	-	-	-	-	-	-
Methoxychlor	ug/L	-	-	-	-	-	-	-	-
Toxaphene	ug/L	-	-	-	-	-	-	-	-
General Chemistry									
Chloride	ug/L	11000	11000	25000	42000	40000	60000	150000	52000
Cyanide (total)	mg/L	-	-	-	-	-	-	-	0.39
Nitrate (as N)	ug/L	8000	7600	17000	3000	19000	310 J	150 J	16000
Nitrite (as N)	ug/L	35 J	28 J	140	19 J	27 J	14 U	14 U	39 J
Sulfate	ug/L	39000	39000	130000	180000	75000	130000	140000	250000
									100000

Notes:

J - Estimated concentration.

U - Not detected at the associated reporting limit.

UJ - Not detected; associated reporting limit is estimated.

- - Not applicable.

Table 2A

Summary of Analytical Results
Groundwater Sampling
South Dayton Dump and Landfill Site
Moraine, Ohio

Sample Location:	BH09-18	BH10-18	BH12-18	BH13-18	BH20-18	BH20-18		
Sample ID:	WG-38443-051418-GL-012	WG-38443-051118-GL-011	WG-38443-051818-GL-016	WG-38443-051818-GL-015	WG-38443-051518-GL-013	WG-38443-051518-GL-014		
Sample Date:	5/14/2018	5/11/2018	5/18/2018	5/18/2018	5/15/2018	5/15/2018		
Parameters		Units						
Volatiles								
1,1,1-Trichloroethane	ug/L	0.23 U	0.23 U	0.23 U	0.27 J	0.23 U	0.23 U	
1,1,2,2-Tetrachloroethane	ug/L	0.32 U	0.32 U					
1,1,2-Trichloroethane	ug/L	0.34 U	0.34 U					
1,1-Dichloroethane	ug/L	0.25 U	0.25 U	0.25 UJ	0.30 J	0.25 U	0.25 U	
1,1-Dichloroethene	ug/L	0.27 U	0.27 U	0.27 UJ	0.27 UJ	0.27 U	0.27 U	
1,2,4-Trichlorobenzene	ug/L	0.27 U	0.27 U	0.27 UJ	0.27 UJ	0.27 U	0.27 U	
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	0.0086 U	0.0086 U					
1,2-Dibromoethane (Ethylene dibromide)	ug/L	0.0087 U	0.0087 U					
1,2-Dichlorobenzene	ug/L	0.26 U	0.26 U	0.26 U	0.26 U	0.43 J	0.40 J	
1,2-Dichloroethane	ug/L	0.30 U	0.30 U					
1,2-Dichloropropane	ug/L	0.30 U	0.30 U					
1,3-Dichlorobenzene	ug/L	0.32 U	0.32 U					
1,4-Dichlorobenzene	ug/L	0.23 U	0.23 U	0.23 U	0.23 U	0.44 J	0.41 J	
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	1.0 U	1.0 U					
2-Hexanone	ug/L	1.2 U	1.2 U					
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	ug/L	0.71 U	0.71 U					
Acetone	ug/L	1.8 U	7.5 J	1.8 U	1.8 U	1.8 U	1.8 U	
Benzene	ug/L	0.28 J	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	
Bromodichloromethane	ug/L	0.30 U	0.30 U					
Bromoform	ug/L	0.43 U	0.43 U					
Bromomethane (Methyl bromide)	ug/L	0.42 U	0.42 U	0.42 UJ	0.42 UJ	0.42 U	0.42 U	
Carbon disulfide	ug/L	0.34 U	0.34 U					
Carbon tetrachloride	ug/L	0.35 U	0.35 U					
Chlorobenzene	ug/L	2.9	0.32 U	0.32 U	0.32 U	18	17	
Chloroethane	ug/L	0.41 U	0.41 U	0.41 UJ	0.41 UJ	0.41 U	0.41 U	
Chloroform (Trichloromethane)	ug/L	0.31 U	0.31 U	0.31 UJ	0.31 UJ	0.31 U	0.31 U	
Chloromethane (Methyl chloride)	ug/L	0.43 U	0.43 U	0.43 UJ	0.43 UJ	0.43 U	0.43 U	
cis-1,2-Dichloroethene	ug/L	2.1	1.2	1.8 J	0.90 J	0.99 J	0.93 J	
cis-1,3-Dichloropropene	ug/L	0.26 U	0.26 U	0.26 UJ	0.26 U	0.26 U	0.26 U	
Cyclohexane	ug/L	0.44 U	0.44 U					
Dibromochloromethane	ug/L	0.25 U	0.25 U	0.25 UJ	0.25 UJ	0.25 U	0.25 U	
Dichlorodifluoromethane (CFC-12)	ug/L	0.50 U	0.50 U	0.50 UJ	0.50 UJ	0.50 U	0.50 U	
Ethylbenzene	ug/L	0.26 U	0.26 U					
Isopropyl benzene	ug/L	0.21 U	0.21 U					
m&p-Xylenes	ug/L	0.24 U	0.24 U					
Methyl acetate	ug/L	1.4 U	1.4 U					
Methyl cyclohexane	ug/L	0.45 U	0.45 U					
Methyl tert butyl ether (MTBE)	ug/L	0.27 U	0.27 U					
Methylene chloride	ug/L	0.53 U	0.53 U	0.53 UJ	0.53 UJ	0.53 U	0.53 U	
o-Xylene	ug/L	0.28 U	0.28 U					
Styrene	ug/L	0.23 U	0.23 U					
Tetrachloroethene	ug/L	0.30 U	0.30 U	0.63 J	0.30 U	0.30 U	0.30 U	
Toluene	ug/L	0.23 U	0.23 U					
trans-1,2-Dichloroethene	ug/L	0.29 U	0.29 U	0.29 UJ	0.29 UJ	0.29 U	0.29 U	
trans-1,3-Dichloropropene	ug/L	0.31 U	0.31 U	0.31 UJ	0.31 UJ	0.31 U	0.31 U	
Trichloroethene	ug/L	0.33 U	0.33 U	11	7.9	0.33 U	0.33 U	
Trichlorofluoromethane (CFC-11)	ug/L	0.50 U	0.50 U					
Trifluorotrichloroethane (CFC-113)	ug/L	0.41 U	0.41 U					
Vinyl chloride	ug/L	15	0.45 U	0.45 UJ	0.45 UJ	0.45 U	0.45 U	
Xylenes (total)	ug/L	0.24 U	0.24 U					

Table 2A

Summary of Analytical Results
Groundwater Sampling
South Dayton Dump and Landfill Site
Moraine, Ohio

Sample Location:	BH09-18	BH10-18	BH12-18	BH13-18	BH20-18	BH20-18
Sample ID:	WG-38443-051418-GL-012	WG-38443-051118-GL-011	WG-38443-051818-GL-016	WG-38443-051818-GL-015	WG-38443-051518-GL-013	WG-38443-051518-GL-014
Sample Date:	5/14/2018	5/11/2018	5/18/2018	5/18/2018	5/15/2018	5/15/2018
Parameters		Units				
Semi-Volatiles						
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	ug/L	0.41 U	0.42 U	0.52 U	0.56 U	0.56 U
2,4,5-Trichlorophenol	ug/L	0.31 U	0.31 U	1.9 U	2.0 U	2.0 U
2,4,6-Trichlorophenol	ug/L	0.24 U	0.25 U	1.7 U	1.8 U	1.8 U
2,4-Dichlorophenol	ug/L	0.19 U	0.20 U	0.25 U	0.26 U	0.27 U
2,4-Dimethylphenol	ug/L	0.26 U	0.26 U	0.49 U	0.52 U	0.53 U
2,4-Dinitrophenol	ug/L	0.33 U	0.33 U	5.9 U	6.3 U	6.3 U
2,4-Dinitrotoluene	ug/L	0.26 U	0.26 U	2.0 U	2.1 U	2.1 U
2,6-Dinitrotoluene	ug/L	0.82 U	0.83 U	2.0 U	2.1 U	2.2 U
2-Chloronaphthalene	ug/L	0.10 U	0.10 U	0.46 U	0.49 U	0.49 U
2-Chlorophenol	ug/L	0.30 U	0.30 U	0.26 U	0.28 U	0.28 U
2-Methylnaphthalene	ug/L	0.092 U	0.094 U	0.11 U	0.11 U	0.11 U
2-Methylphenol	ug/L	0.17 U	0.18 U	0.20 U	0.21 U	0.21 U
2-Nitroaniline	ug/L	0.21 U	0.22 U	0.49 U	0.52 U	0.52 U
2-Nitrophenol	ug/L	0.29 U	0.29 U	0.54 U	0.57 U	0.58 U
3&4-Methylphenol	ug/L	0.82 U	0.83 U	0.18 U	0.19 U	0.19 U
3,3'-Dichlorobenzidine	ug/L	0.38 U	0.39 U	1.1 U	1.2 U	1.2 U
3-Nitroaniline	ug/L	0.29 U	0.29 U	0.54 U	0.57 U	0.58 U
4,6-Dinitro-2-methylphenol	ug/L	2.4 U	2.5 U	2.7 U	2.8 U	2.9 U
4-Bromophenyl phenyl ether	ug/L	0.22 U	0.23 U	0.48 U	0.50 U	0.51 U
4-Chloro-3-methylphenol	ug/L	0.21 U	0.22 U	0.28 U	0.30 U	0.30 U
4-Chloroaniline	ug/L	0.21 U	0.22 U	0.30 U	0.32 U	0.32 U
4-Chlorophenyl phenyl ether	ug/L	0.31 U	0.31 U	0.52 U	0.56 U	0.56 U
4-Nitroaniline	ug/L	0.22 U	0.23 U	0.87 U	0.93 U	0.94 U
4-Nitrophenol	ug/L	0.30 U	0.30 U	2.1 U	2.2 U	2.2 U
Acenaphthene	ug/L	0.045 U	0.046 U	0.16 U	0.17 U	0.18 U
Acenaphthylene	ug/L	0.049 U	0.050 U	0.12 U	0.13 U	0.13 U
Acetophenone	ug/L	0.35 U	0.35 U	0.35 U	0.37 U	0.37 U
Anthracene	ug/L	0.090 U	0.092 U	0.13 U	0.14 U	0.14 U
Atrazine	ug/L	0.35 U	0.35 U	0.32 U	0.34 U	0.35 U
Benzaldehyde	ug/L	0.40 U	0.41 U	0.37 U	0.39 U	0.40 U
Benzo(a)anthracene	ug/L	0.030 U	0.031 U	0.16 U	0.17 U	0.17 U
Benzo(a)pyrene	ug/L	0.052 U	0.054 U	0.16 U	0.17 U	0.18 U
Benzo(b)fluoranthene	ug/L	0.040 U	0.041 U	0.15 U	0.16 U	0.16 U
Benzo(g,h,i)perylene	ug/L	0.047 U	0.048 U	0.17 U	0.18 U	0.18 U
Benzo(k)fluoranthene	ug/L	0.046 U	0.047 U	0.13 U	0.14 U	0.14 U
Biphenyl (1,1-Biphenyl)	ug/L	0.13 U	0.14 U	0.47 U	0.50 U	0.50 U
bis(2-Chloroethoxy)methane	ug/L	0.33 U	0.33 U	0.43 U	0.46 U	0.46 U
bis(2-Chloroethyl)ether	ug/L	0.10 U	0.10 U	0.38 U	0.41 U	0.41 U
bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	1.7 U	1.8 U	2.1 U	2.2 U	2.3 U
Butyl benzylphthalate (BBP)	ug/L	0.27 U	0.27 U	0.63 U	0.67 U	0.68 U
Caprolactam	ug/L	0.20 U	0.21 U	0.19 U	0.20 U	0.20 U
Carbazole	ug/L	0.29 U	0.29 U	0.47 U	0.49 U	0.50 U
Chrysene	ug/L	0.051 U	0.052 U	0.18 U	0.19 U	0.19 U
Dibenz(a,h)anthracene	ug/L	0.046 U	0.046 U	0.042 U	0.045 U	0.046 U
Dibenzofuran	ug/L	0.020 U	0.021 U	0.53 U	0.57 U	0.57 U
Diethyl phthalate	ug/L	0.61 U	0.62 U	3.6 U	3.9 U	3.9 U
Dimethyl phthalate	ug/L	0.30 U	0.30 U	0.49 U	0.52 U	0.53 U
Di-n-butylphthalate (DBP)	ug/L	1.7 U	1.8 U	1.7 U	1.8 U	1.8 U
Di-n-octyl phthalate (DnOP)	ug/L	0.23 U	0.24 U	0.78 U	0.83 U	0.84 U
Fluoranthene	ug/L	0.046 U	0.046 U	0.15 U	0.16 U	0.16 U
Fluorene	ug/L	0.041 U	0.042 U	0.16 U	0.17 U	0.17 U
Hexachlorobenzene	ug/L	0.087 U	0.089 U	0.15 U	0.16 U	0.16 U
Hexachlorobutadiene	ug/L	0.28 U	0.28 U	0.52 U	0.55 U	0.55 U
Hexachlorocyclopentadiene	ug/L	0.24 U	0.25 U	1.7 U	1.8 U	1.8 U
Hexachloroethane	ug/L	0.19 U	0.20 U	0.38 U	0.40 U	0.40 U
Indeno(1,2,3-cd)pyrene	ug/L	0.044 U	0.045 U	0.13 U	0.14 U	0.14 U
Isophorone	ug/L	0.28 U	0.28 U	0.31 U	0.33 U	0.33 U
Naphthalene	ug/L	0.064 U	0.065 U	0.10 U	0.11 U	0.11 U
Nitrobenzene	ug/L	0.041 U	0.042 U	0.49 U	0.52 U	0.52 U
N-Nitrosodi-n-propylamine	ug/L	0.24 U	0.25 U	0.24 U	0.26 U	0.26 U
N-Nitrosodiphenylamine	ug/L	0.32 U	0.32 U	0.42 U	0.44 U	0.45 U
Pentachlorophenol	ug/L	0.28 U	0.28 U	3.0 U	3.1 U	3.2 U

Table 2A

Summary of Analytical Results
Groundwater Sampling
South Dayton Dump and Landfill Site
Moraine, Ohio

Sample Location:	BH09-18	BH10-18	BH12-18	BH13-18	BH20-18	BH20-18
Sample ID:	WG-38443-051418-GL-012	WG-38443-051118-GL-011	WG-38443-051818-GL-016	WG-38443-051818-GL-015	WG-38443-051518-GL-013	WG-38443-051518-GL-014
Sample Date:	5/14/2018	5/11/2018	5/18/2018	5/18/2018	5/15/2018	5/15/2018
Parameters						
Phenanthrene	ug/L	0.063 U	0.064 U	0.16 U	0.17 U	0.17 U
Phenol	ug/L	0.61 U	0.62 U	0.12 U	0.13 U	0.13 U
Pyrene	ug/L	0.043 U	0.044 U	0.17 U	0.18 U	0.17 U
Metals						
Aluminum	ug/L	160	200	34 U	1300	34 U
Aluminum (dissolved)	ug/L	34 U				
Antimony	ug/L	0.57 U				
Antimony (dissolved)	ug/L	0.57 U				
Arsenic	ug/L	19	1.6 J	0.75 U	3.9 J	230
Arsenic (dissolved)	ug/L	18	0.75 U	0.75 U	0.75 U	230
Barium	ug/L	230	280	150	160	260
Barium (dissolved)	ug/L	230	290	150	110	250
Beryllium	ug/L	0.49 J	0.31 U	0.31 U	0.31 U	0.31 U
Beryllium (dissolved)	ug/L	0.31 U				
Cadmium	ug/L	0.48 J	0.21 U	0.21 U	0.21 U	0.21 U
Cadmium (dissolved)	ug/L	0.24 J	0.21 U	0.21 U	0.21 U	0.21 U
Calcium	ug/L	97000	160000	130000	170000	160000
Calcium (dissolved)	ug/L	98000	160000	120000	120000	160000
Chromium	ug/L	2.7	2.2	0.98 U	14	0.98 U
Chromium (dissolved)	ug/L	0.98 U				
Cobalt	ug/L	1.3	0.42 J	0.91 J	5.7	1.7
Cobalt (dissolved)	ug/L	0.96 J	0.32 J	0.88 J	3.8	1.5
Copper	ug/L	3.7	1.7 U	2.9	7.8	1.7 U
Copper (dissolved)	ug/L	1.7 U	1.7 U	3.0	5.4	1.7 UJ
Iron	ug/L	11000	4500	780	4700	13000
Iron (dissolved)	ug/L	8900	3800	660	860	13000
Lead	ug/L	1.6	0.66 J	0.45 U	3.0	0.45 U
Lead (dissolved)	ug/L	0.45 U				
Magnesium	ug/L	42000	54000	42000	56000	89000
Magnesium (dissolved)	ug/L	41000	54000	39000	36000	85000
Manganese	ug/L	210	620	200	430	70
Manganese (dissolved)	ug/L	160	630	190	260	67
Mercury	ug/L	0.13 U				
Mercury (dissolved)	ug/L	0.13 U				
Nickel	ug/L	2.2	2.7	4.0	63	2.9
Nickel (dissolved)	ug/L	1.5 U	2.4	4.1	44	2.7
Potassium	ug/L	14000	9300	8500	7800	32000
Potassium (dissolved)	ug/L	14000	9600	8100	7100	31000
Selenium	ug/L	1.1 J	0.89 U	4.8 J	7.3	1.1 J
Selenium (dissolved)	ug/L	0.89 U	0.89 U	5.0	6.6	0.89 U
Silver	ug/L	0.053 U				
Silver (dissolved)	ug/L	0.053 U				
Sodium	ug/L	70000	85000	120000	130000	49000
Sodium (dissolved)	ug/L	69000	90000	110000	120000	48000
Thallium	ug/L	0.20 J	0.20 U	0.20 U	0.20 U	0.20 U
Thallium (dissolved)	ug/L	0.20 U				
Vanadium	ug/L	0.89 J	0.82 U	0.82 U	3.8 J	0.82 U
Vanadium (dissolved)	ug/L	0.82 U				
Zinc	ug/L	15 U	18 J	15 U	390	15 U
Zinc (dissolved)	ug/L	15 U	15 U	15 U	280	15 U
PCBs						
Aroclor-1016 (PCB-1016)	ug/L	0.056 U	0.062 U	0.068 U	0.062 U	0.057 U
Aroclor-1221 (PCB-1221)	ug/L	0.057 U	0.063 U	0.070 U	0.063 U	0.058 U
Aroclor-1232 (PCB-1232)	ug/L	0.074 U	0.082 U	0.090 U	0.082 U	0.076 U
Aroclor-1242 (PCB-1242)	ug/L	0.076 U	0.084 U	0.093 U	0.084 U	0.078 U
Aroclor-1248 (PCB-1248)	ug/L	0.050 U	0.056 U	0.061 U	0.056 U	0.051 U
Aroclor-1254 (PCB-1254)	ug/L	0.040 U	0.044 U	0.049 U	0.044 U	0.041 U
Aroclor-1260 (PCB-1260)	ug/L	0.046 U	0.051 U	0.056 U	0.051 U	0.047 U

Table 2A

Summary of Analytical Results
Groundwater Sampling
South Dayton Dump and Landfill Site
Moraine, Ohio

Sample Location:	BH09-18 WG-38443-051418-GL-012 5/14/2018	BH10-18 WG-38443-051118-GL-011 5/11/2018	BH12-18 WG-38443-051818-GL-016 5/18/2018	BH13-18 WG-38443-051818-GL-015 5/18/2018	BH20-18 WG-38443-051518-GL-013 5/15/2018	BH20-18 WG-38443-051518-GL-014 5/15/2018 Duplicate
Parameters	Units					
Herbicides						
2,4,5-T	ug/L	-	-	0.57 U	0.57 U	0.57 U
2,4,5-TP (Silvex)	ug/L	-	-	0.43 U	0.43 U	0.43 U
2,4-Dichlorophenoxyacetic acid (2,4-D)	ug/L	-	-	2.2 U	2.2 U	2.2 U
Pesticides						
4,4'-DDD	ug/L	-	-	0.065 U	0.0059 U	0.0056 U
4,4'-DDE	ug/L	-	-	0.052 U	0.0048 U	0.0045 U
4,4'-DDT	ug/L	-	-	0.059 UJ	0.0053 UJ	0.0051 U
Aldrin	ug/L	-	-	0.029 U	0.0027 U	0.0025 U
alpha-BHC	ug/L	-	-	0.024 U	0.0022 U	0.0021 U
alpha-Chlordane	ug/L	-	-	0.039 U	0.0036 U	0.0034 U
beta-BHC	ug/L	-	-	0.056 U	0.0051 U	0.0048 U
delta-BHC	ug/L	-	-	0.052 U	0.0048 U	0.0045 U
Dieldrin	ug/L	-	-	0.028 U	0.0026 U	0.0024 U
Endosulfan I	ug/L	-	-	0.045 U	0.0041 U	0.0039 U
Endosulfan II	ug/L	-	-	0.028 U	0.0026 U	0.0024 U
Endosulfan sulfate	ug/L	-	-	0.045 U	0.0041 U	0.0039 U
Endrin	ug/L	-	-	0.030 U	0.0028 U	0.0026 U
Endrin aldehyde	ug/L	-	-	0.056 U	0.0051 U	0.0048 U
Endrin ketone	ug/L	-	-	0.049 U	0.0044 U	0.0042 U
gamma-BHC (lindane)	ug/L	-	-	0.030 U	0.0028 U	0.0026 U
gamma-Chlordane	ug/L	-	-	0.061 U	0.0056 U	0.0053 U
Heptachlor	ug/L	-	-	0.040 U	0.0037 U	0.0035 U
Heptachlor epoxide	ug/L	-	-	0.032 U	0.0029 U	0.0027 U
Methoxychlor	ug/L	-	-	0.057 UJ	0.0052 UJ	0.0049 UJ
Toxaphene	ug/L	-	-	0.71 U	0.065 U	0.061 U
General Chemistry						
Chloride	ug/L	63000	180000	180000	220000	43000
Cyanide (total)	mg/L	0.012 U	0.010 U	0.0060 U	0.0060 U	0.0060 U
Nitrate (as N)	ug/L	14 U	14 U	1700	3700	14 U
Nitrite (as N)	ug/L	14 U	14 U	14 U	44 J	14 U
Sulfate	ug/L	21000	68000	56000	57000	49000

Notes:

J - Estimated concentration.

U - Not detected at the associated reporting limit.

UJ - Not detected; associated reporting limit is estimated.

-- Not applicable.

Table 2B

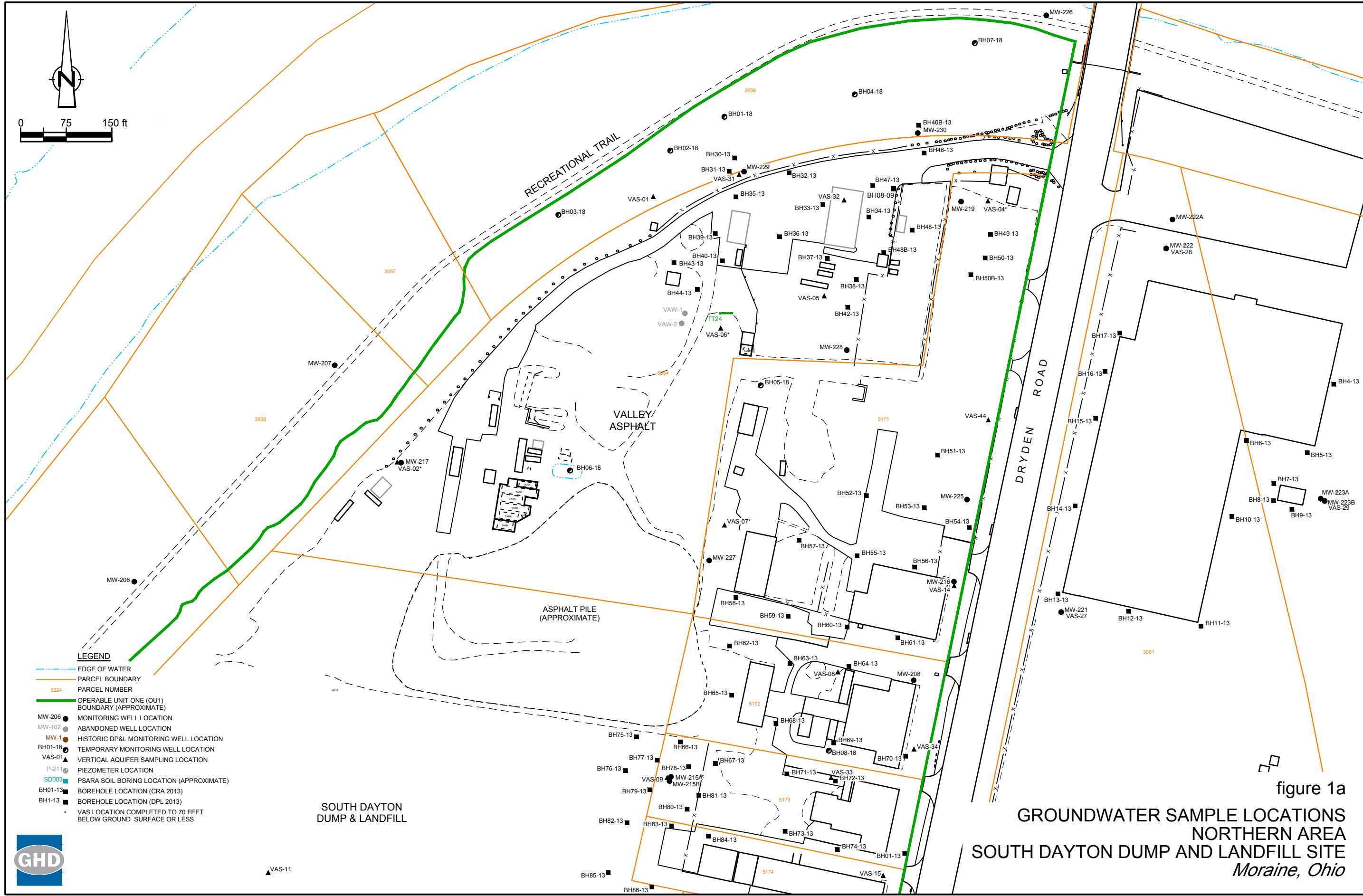
Summary of Analytical Results for Detected Parameters
South Dayton Dump and Landfill Site
Moraine, Ohio

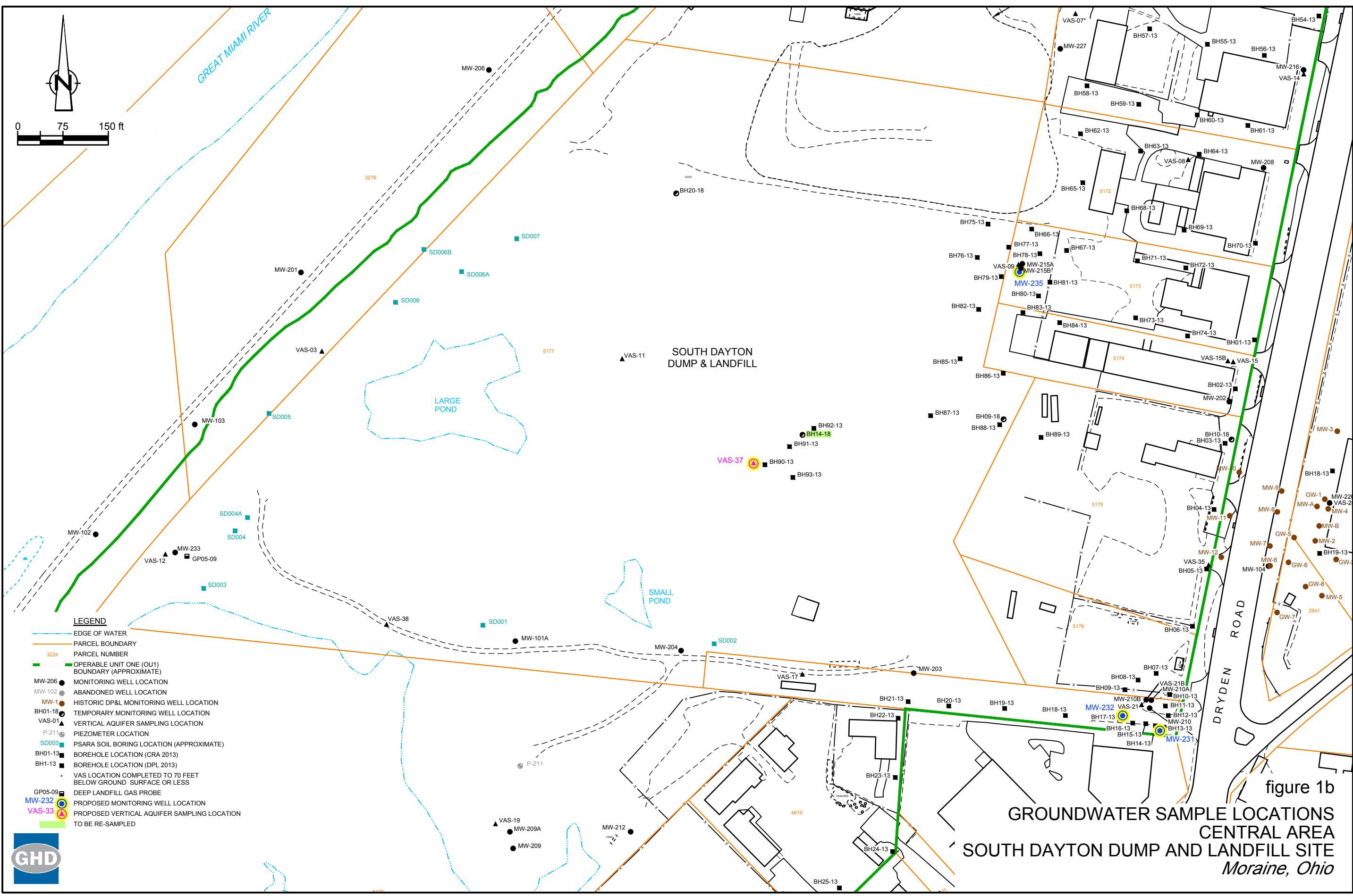
Sample Location:	BH10-18	BH12-18	BH13-18	BH20-18	BH20-18
Sample ID:	WG-38443-051118-GL-011	WG-38443-051818-GL-016	WG-38443-051818-GL-015	WG-38443-051518-GL-013	WG-38443-051518-GL-014
Sample Date:	5/11/2018	5/18/2018	5/18/2018	5/15/2018	5/15/2018 Duplicate
Parameters	Units				
Volatiles					
1,1,1-Trichloroethane	ug/L	0.23 U	0.23 U	0.27 J	0.23 U
1,1-Dichloroethane	ug/L	0.25 U	0.25 UJ	0.30 J	0.25 U
1,2-Dichlorobenzene	ug/L	0.26 U	0.26 U	0.26 U	0.43 J
1,4-Dichlorobenzene	ug/L	0.23 U	0.23 U	0.23 U	0.44 J
Acetone	ug/L	7.5 J	1.8 U	1.8 U	0.41 J
Benzene	ug/L	0.28 U	0.28 U	0.28 U	0.28 U
Chlorobenzene	ug/L	0.32 U	0.32 U	0.32 U	18
cis-1,2-Dichloroethene	ug/L	1.2	1.8 J	0.90 J	0.99 J
Tetrachloroethene	ug/L	0.30 U	0.63 J	0.30 U	0.30 U
Toluene	ug/L	0.23 U	0.23 U	0.23 U	0.23 U
Trichloroethene	ug/L	0.33 U	11	7.9	0.33 U
Vinyl chloride	ug/L	0.45 U	0.45 UJ	0.45 UJ	0.45 U
Metals					
Aluminum	ug/L	200	34 U	1300	34 U
Aluminum (dissolved)	ug/L	34 U	34 U	34 U	34 U
Antimony	ug/L	0.57 U	0.57 U	0.57 U	0.57 U
Antimony (dissolved)	ug/L	0.57 U	0.57 U	0.57 U	0.57 U
Arsenic	ug/L	1.6 J	0.75 U	3.9 J	230
Arsenic (dissolved)	ug/L	0.75 U	0.75 U	0.75 U	230
Barium	ug/L	280	150	160	260
Barium (dissolved)	ug/L	290	150	110	250
Beryllium	ug/L	0.31 U	0.31 U	0.31 U	0.31 U
Cadmium	ug/L	0.21 U	0.21 U	0.21 U	0.21 U
Cadmium (dissolved)	ug/L	0.21 U	0.21 U	0.21 U	0.21 U
Calcium	ug/L	160000	130000	170000	160000
Calcium (dissolved)	ug/L	160000	120000	120000	160000
Chromium	ug/L	2.2	0.98 U	14	0.98 U
Chromium (dissolved)	ug/L	0.98 U	0.98 U	0.98 U	0.98 U
Cobalt	ug/L	0.42 J	0.91 J	5.7	1.7
Cobalt (dissolved)	ug/L	0.32 J	0.88 J	3.8	1.5
Copper	ug/L	1.7 U	2.9	7.8	1.7 U
Copper (dissolved)	ug/L	1.7 U	3.0	5.4	5.9 J
Iron	ug/L	4500	780	4700	13000
Iron (dissolved)	ug/L	3800	660	860	13000
Lead	ug/L	0.66 J	0.45 U	3.0	0.45 U
Lead (dissolved)	ug/L	0.45 U	0.45 U	0.45 U	0.45 U
Magnesium	ug/L	54000	42000	56000	89000
Magnesium (dissolved)	ug/L	54000	39000	36000	85000
Manganese	ug/L	620	200	430	70
Manganese (dissolved)	ug/L	630	190	260	67
Nickel	ug/L	2.7	4.0	63	2.9
Nickel (dissolved)	ug/L	2.4	4.1	44	2.7
Potassium	ug/L	9300	8500	7800	32000
Potassium (dissolved)	ug/L	9600	8100	7100	31000
Selenium	ug/L	0.89 U	4.8 J	7.3	1.1 J
Selenium (dissolved)	ug/L	0.89 U	5.0	6.6	0.89 U
Silver	ug/L	0.053 U	0.053 U	0.053 U	0.053 U
Silver (dissolved)	ug/L	0.053 U	0.053 U	0.053 U	0.053 U
Sodium	ug/L	85000	120000	130000	50000
Sodium (dissolved)	ug/L	90000	110000	120000	48000
Thallium	ug/L	0.20 U	0.20 U	0.20 U	0.20 U
Thallium (dissolved)	ug/L	0.20 U	0.20 U	0.20 U	0.20 U
Vanadium	ug/L	0.82 U	0.82 U	3.8 J	0.82 U
Vanadium (dissolved)	ug/L	0.82 U	0.82 U	0.82 U	0.82 U
Zinc	ug/L	18 J	15 U	390	15 U
Zinc (dissolved)	ug/L	15 U	15 U	280	15 U
General Chemistry					
Chloride	ug/L	180000	180000	220000	43000
Cyanide (total)	mg/L	0.010 U	0.0060 U	0.0060 U	0.0060 U
Nitrate (as N)	ug/L	14 U	1700	3700	14 U
Nitrite (as N)	ug/L	14 U	14 U	44 J	14 U
Sulfate	ug/L	68000	56000	57000	49000

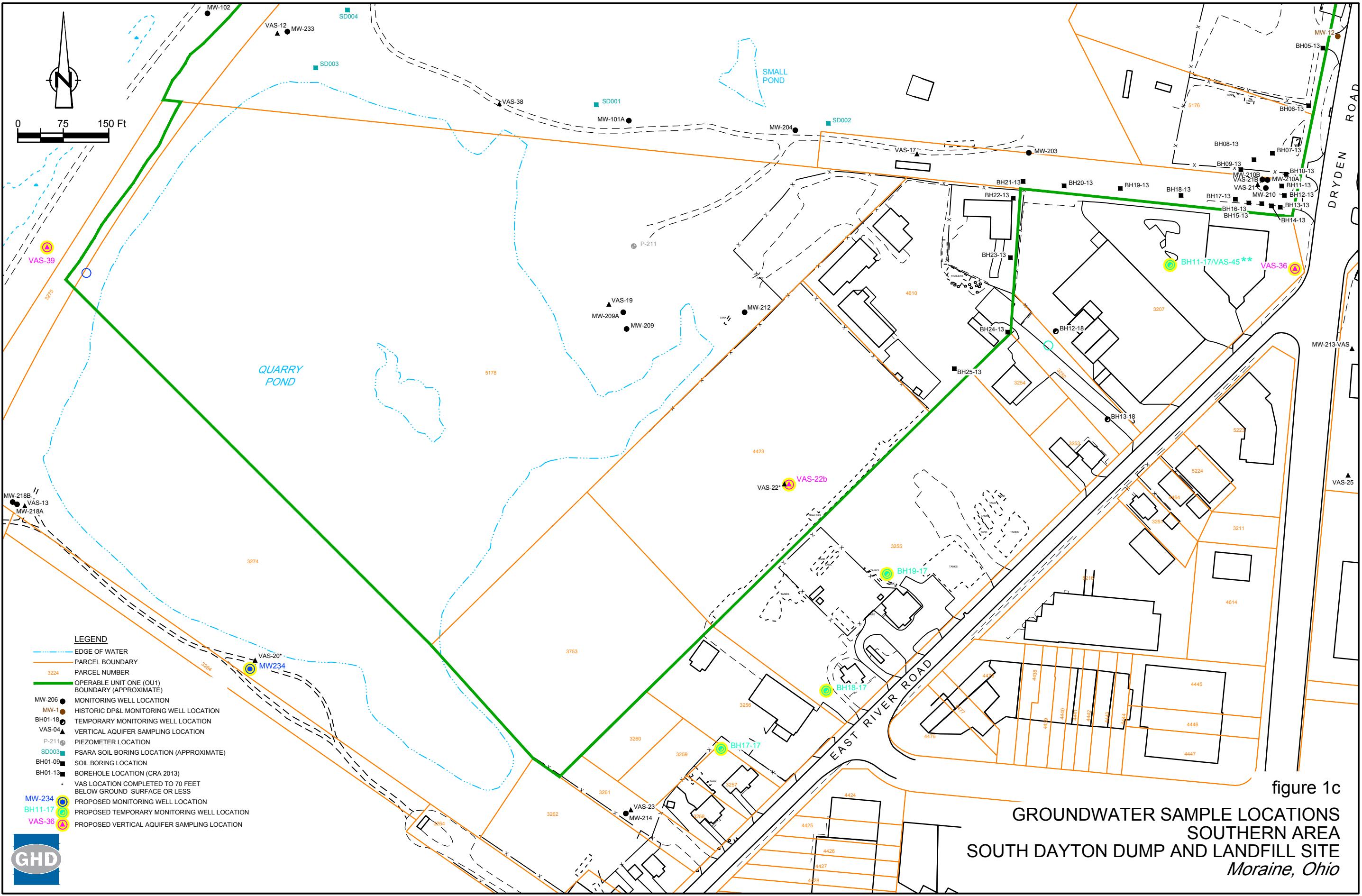
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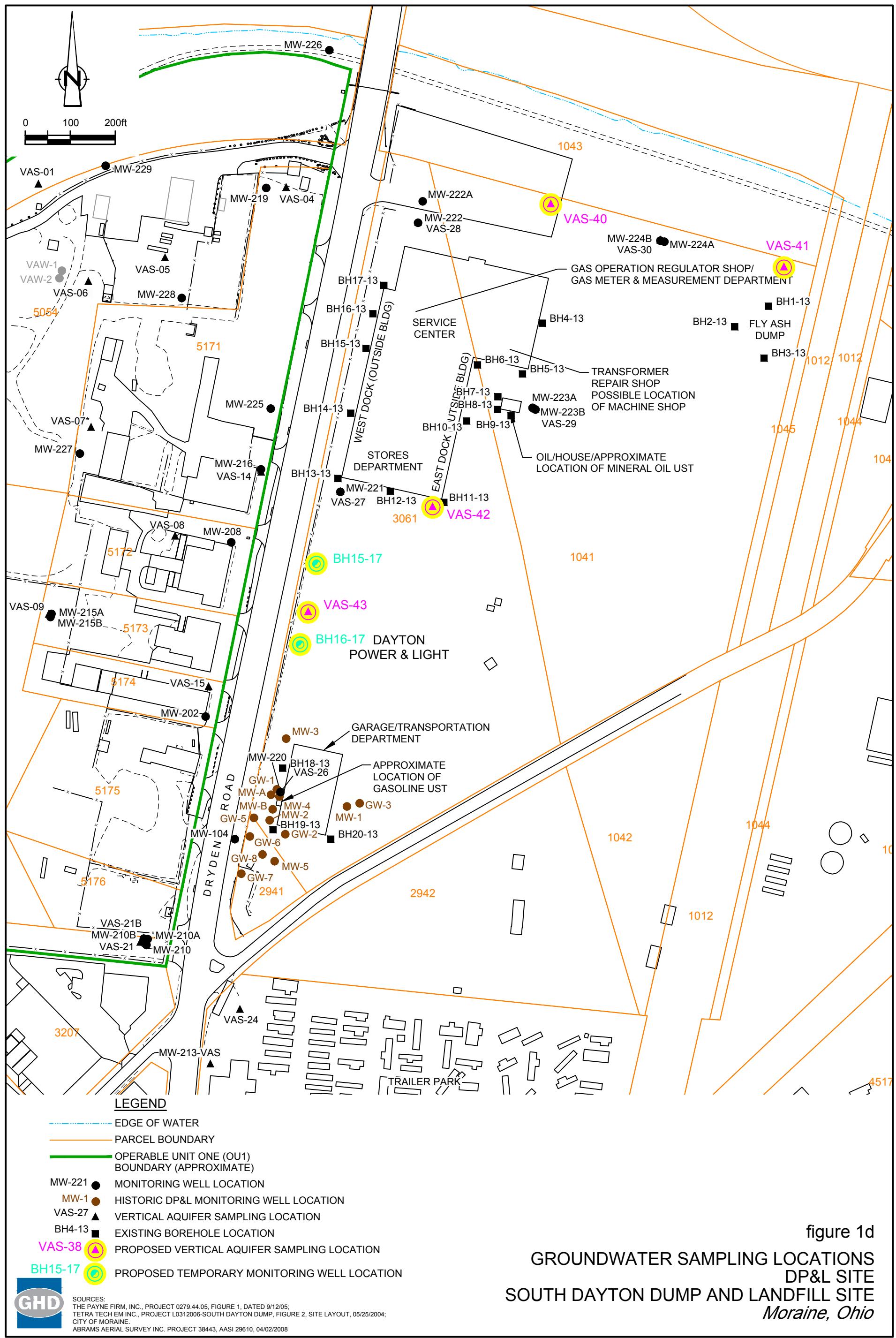
- J - Estimated concentration.
U - Not detected at the associated reporting limit.
UU - Not detected; associated reporting limit is estimated.
-- Not applicable.

Attachment 1









Attachment 2



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: SOUTH DAYTON DUMP AND LANDFILL SITE
 PROJECT NUMBER: 038443
 CLIENT: PRP GROUP
 LOCATION: MORaine, OHIO

HOLE DESIGNATION: BH-01-18
 DATE COMPLETED: 8 May 2018
 DRILLING METHOD: GEOPROBE
 FIELD PERSONNEL: J. CLOSE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	TEMP MONITORING WELL	SAMPLE			
				NUMBER	INTERVAL	REC (%)	'N' VALUE
2	ML-SILT (FILL), cohesive, dark brown, dry			1GP		53	0.0 / NA
4	- increase in clay and silt content at 4.0ft BGS			2GP		23	0.0 / NA
8	- trace fine sand at 8.0ft BGS	8.00		3GP		48	0.0 / NA
10	SM-SILTY SAND (FILL), trace clay, fine grained, consolidated, well graded, dark brown, moist			4GP		78	0.0 / NA
12	- trace fine gravel at 11.7ft BGS			5GP		100	0.0 / NA
14				6GP		100	0.0 / NA
16	SW-SAND (FILL), loose, fine to medium grained, well graded, gray, dry	15.00 15.20		7GP 25.5-26.5 NEG SUDAN IV		88	0.0 / NA
18	SM-SILTY SAND (FILL), trace clay, fine grained, consolidated, well graded, dark brown, moist			8GP			
20							
22							
24	CL-SILTY CLAY (native), trace fine sand, cohesive, low plasticity, tan/light brown, moist	24.00					
26	SW-SAND, trace silt, loose, fine to medium grained, well graded, light brown, wet	25.90					
28	- increase in coarse sand and fine gravel at 26.7ft BGS	27.50					
30	GW/SW-GRAVEL/SAND, trace silt, fine gravel, loose, medium to coarse sand, well graded, tan/brown, wet						
32	END OF BOREHOLE @ 32.0ft BGS	32.00					
34							
NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE WATER FOUND ↓							



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: SOUTH DAYTON DUMP AND LANDFILL SITE
 PROJECT NUMBER: 038443
 CLIENT: PRP GROUP
 LOCATION: MORaine, OHIO

HOLE DESIGNATION: BH-02-18
 DATE COMPLETED: 7 May 2018
 DRILLING METHOD: GEOPROBE
 FIELD PERSONNEL: J. CLOSE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	TEMP MONITORING WELL	SAMPLE			
				NUMBER	INTERVAL	REC (%)	'N' VALUE
							PID (ppm)/ RAD
2	ML-SILT, trace clay, trace fine sand, trace fine gravel, cohesive, dark brown, dry			1GP		65	0.0 / NA
4				2GP		70	0.0 / NA
6	- wood fragment at 6.0ft BGS			3GP		35	0.0 / NA
8	- wood fragment at 8.7ft BGS			4GP		68	0.0 / NA
10				5GP		93	0.0 / NA
12				6GP		100	0.0 / NA
14				7GP		65	0.0 / NA
16	SW-SAND, loose, fine to medium grained, well graded, brown, dry	14.60 14.80		27-28' NEG SUDAN IV		25	0.0 / NA
18	ML-SILT, little clay, cohesive, dark brown, moist						
20							
22							
24	CL-SILTY CLAY, cohesive, medium brown, moist	24.00					
26							
28	GW-GRAVEL, little medium to coarse sand, little silt and clay, fine grained, consolidated, brown/tan, wet - wet at 27.7ft BGS	27.40					
30							
32	END OF BOREHOLE @ 32.0ft BGS	32.00					
34							
NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE WATER FOUND							



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: SOUTH DAYTON DUMP AND LANDFILL SITE
 PROJECT NUMBER: 038443
 CLIENT: PRP GROUP
 LOCATION: MORaine, OHIO

HOLE DESIGNATION: BH-03-18
 DATE COMPLETED: 7 May 2018
 DRILLING METHOD: GEOPROBE
 FIELD PERSONNEL: J. CLOSE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	TEMP MONITORING WELL	SAMPLE			
				NUMBER	INTERVAL	REC (%)	'N' VALUE PID (ppm)/ RAD
2	ML-SILT, trace fine to medium sand, slightly cohesive, brown, dry			1GP		60	0.0 / NA
4				2GP		53	0.0 / NA
6				3GP		60	0.0 / NA
8				4GP		60	0.0 / NA
10				5GP		80	0.0 / NA
12	CL-CLAY, silt, cohesive	11.30		6GP 22-23' NEG SUDAN IV		63	0.0 / NA
14				7GP		23	0.0 / NA
16							
18							
20							
22							
24	SM-SILTY SAND, trace clay, fine grained, trace coarse grained, consolidated, brown, wet - trace fine gravel at 23.4ft BGS	22.60					
26	GW-GRAVEL, little medium to coarse sand, loose, fine grained	24.20					
28							
30	END OF BOREHOLE @ 30.5ft BGS	30.50					
32							
34							
<u>NOTES:</u> MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE WATER FOUND							



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: SOUTH DAYTON DUMP AND LANDFILL SITE
 PROJECT NUMBER: 038443
 CLIENT: PRP GROUP
 LOCATION: MORaine, OHIO

HOLE DESIGNATION: BH-04-18
 DATE COMPLETED: 8 May 2018
 DRILLING METHOD: GEOPROBE
 FIELD PERSONNEL: J. CLOSE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	TEMP MONITORING WELL	SAMPLE			
				NUMBER	INTERVAL	REC (%)	'N' VALUE PID (ppm)/ RAD
2	TOPSOIL/GRASS ML-SILT (FILL), trace fine sand, cohesive, dark brown, dry - concrete pieces at 3.0ft BGS	0.20		1GP		68	0.0 / 0.0
4				2GP		55	0.0 / 0.0
6				3GP		28	0.0 / 0.0
8				4GP		53	0.0 / 0.0
10				5GP		73	0.0 / 0.0
12				6GP		78	0.0 / 0.0
14	SW-SAND (FILL), loose, fine to medium grained, well graded ML-SILT (FILL), trace fine sand, cohesive, dark brown, dry	14.20 14.40		16-18'-071		73	0.0 / 0.0
16				7GP		73	0.0 / 0.0
18	SM-SILTY SAND (native), fine grained, consolidated, well graded, brown, dry	18.00					
20	SW-SILTY SAND, fine to medium grained, well graded, slightly consolidated, tan, moist	20.00					
22							
24							
26	- wet at 25.6ft BGS						
28	GW/SW-GRAVEL/SAND, loose, fine gravel, medium to coarse sand, well graded, brown/tan, wet - silty gravel from 30.5 to 31.5ft BGS	27.20					
30							
32	END OF BOREHOLE @ 32.0ft BGS	32.00					
34							
NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE WATER FOUND CHEMICAL ANALYSIS							



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: SOUTH DAYTON DUMP AND LANDFILL SITE
 PROJECT NUMBER: 038443
 CLIENT: PRP GROUP
 LOCATION: MORaine, OHIO

HOLE DESIGNATION: BH-05-18
 DATE COMPLETED: 10 May 2018
 DRILLING METHOD: GEOPROBE
 FIELD PERSONNEL: J. CLOSE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	TEMP MONITORING WELL	SAMPLE			
				NUMBER	INTERVAL	REC (%)	'N' VALUE
2	SW-SAND (FILL), loose, fine to medium grained, well graded, black, dry SW-SAND (FILL), little fine gravel, little silt, medium to coarse grained, well graded, slightly consolidated, gray, dry - 1 crushed brick at 4.0ft BGS	0.50		1GP		58	0.0 / 0.0
4				2GP		30	0.0 / 0.0
6	- red clay crushed brick at 6.0ft BGS			3GP		10	0.0 / 0.0
8	- red clay crushed brick at 7.7ft BGS - very little recovery from 8.0 to 12.0ft BGS			4GP		0	-- / --
10				5GP		48	0.0 / 0.0
12				6GP		60	0.0 / 0.0
14				7GP		60	0.0 / 0.0
16				27-28' NEG SUDAN IV		48	0.0 / 0.0
18							
20	GW/SW-SILTY GRAVEL/SAND (native), loose, fine gravel, fine to coarse sand, well graded, tan, dry	20.20					
22							
24							
26							
28	- wet at 27.5ft BGS						
30							
32	CL-CLAY (till), low plasticity, gray, dry END OF BOREHOLE @ 32.0ft BGS	31.50 32.00					
34							
NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE WATER FOUND							



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 2

PROJECT NAME: SOUTH DAYTON DUMP AND LANDFILL SITE
 PROJECT NUMBER: 038443
 CLIENT: PRP GROUP
 LOCATION: MORaine, OHIO

HOLE DESIGNATION: BH-06-18
 DATE COMPLETED: 9 May 2018
 DRILLING METHOD: GEOPROBE
 FIELD PERSONNEL: J. CLOSE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	TEMP MONITORING WELL	SAMPLE			
				NUMBER	INTERVAL	REC (%)	'N' VALUE
2	ASPHALT SW-SAND (FILL), trace silt, trace fine gravel, loose, fine to coarse grained, well graded, dark gray/black, dry	0.33		1GP		78	0.0 / 0.0
4	- loose, fine to medium grained from 5.0 to 5.7ft BGS			2GP		55	0.0 / 0.0
6				3GP		58	0.0 / 0.0
8				4GP		50	0.0 / 0.0
10				5GP		40	0.0 / 0.0
12	- 1" thick iron staining at 11.7ft BGS - red clay brick fragments at 12.0ft BGS - crushed brick, white/peach at 13.0ft BGS			6GP		63	0.0 / 0.0
14				7GP		53	0.0 / 0.0
16				27.5-28.5 NEG SUDAN IV			
18				8GP			
20	CL-SILTY CLAY (FILL), cohesive, low to medium plasticity, black, moist	19.00					
22							
24	SW-SAND (native), some fine gravel, loose, medium to coarse grained, well graded, tan/brown, dry - silty from 25.0 to 26.0ft BGS	24.00					
26							
28	- wet at 28.0ft BGS - rock fragments at 29.0ft BGS	29.30					
30	SW-SAND, trace fine gravel, loose, medium to coarse grained, well graded, brown, wet - iron stained silt at 31.0ft BGS						
32	END OF BOREHOLE @ 32.0ft BGS	32.00					
34							
NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE WATER FOUND							



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 2 of 2

PROJECT NAME: SOUTH DAYTON DUMP AND LANDFILL SITE
PROJECT NUMBER: 038443
CLIENT: PRP GROUP
LOCATION: MORaine, OHIO

HOLE DESIGNATION: BH-06-18
DATE COMPLETED: 9 May 2018
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: J. CLOSE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	TEMP MONITORING WELL	SAMPLE				
				NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)/ RAD
36			Material: STAINLESS STEEL					
38								
40								
42								
44								
46								
48								
50								
52								
54								
56								
58								
60								
62								
64								
66								
68								
NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE WATER FOUND								



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

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PROJECT NAME: SOUTH DAYTON DUMP AND LANDFILL SITE
 PROJECT NUMBER: 038443
 CLIENT: PRP GROUP
 LOCATION: MORaine, OHIO

HOLE DESIGNATION: BH-07-18
 DATE COMPLETED: 9 May 2018
 DRILLING METHOD: GEOPROBE
 FIELD PERSONNEL: J. CLOSE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	TEMP MONITORING WELL	SAMPLE			
				NUMBER	INTERVAL	REC (%)	'N' VALUE PID (ppm)/ RAD
2	TOPSOIL/GRASS ML-SILT (FILL), cohesive, brown, dry - increase in clay content at 1.8ft BGS	0.20		1GP		65	0.0 / 0.0
6	SM-SILTY SAND (FILL), trace clay, fine grained, consolidated, well graded, brown, moist	6.00		2GP		70	0.0 / 0.0
14				3GP		65	0.0 / 0.0
16				4GP		55	0.0 / 0.0
22	CL-SILTY CLAY (native), trace fine sand, cohesive, black/medium brown, moist	20.80		5GP		75	0.0 / 0.0
28	SM-SILTY SAND, trace clay, fine grained, consolidated, well graded, brown, moist GC-CLAYEY/SILTY GRAVEL, little fine to coarse sand, fine grained, well graded, brown, wet GW-GRAVEL, little medium to coarse sand, loose, fine to coarse grained, well graded, brown, wet	26.40 27.50 28.00		6GP		98	0.0 / 0.0
32	END OF BOREHOLE @ 32.0ft BGS	32.00		7GP 27-28' NEG SUDAN IV		83	0.0 / 0.0
				8GP		50	0.0 / 0.0
				WELL DETAILS Screened interval: 28.00 to 32.00ft BGS Length: 4ft			
NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE WATER FOUND ↓							



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

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PROJECT NAME: SOUTH DAYTON DUMP AND LANDFILL SITE
PROJECT NUMBER: 038443
CLIENT: PRP GROUP
LOCATION: MORaine, OHIO

HOLE DESIGNATION: BH-07-18
DATE COMPLETED: 9 May 2018
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: J. CLOSE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	TEMP MONITORING WELL	SAMPLE				
				NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)/ RAD
36			Material: STAINLESS STEEL					
38								
40								
42								
44								
46								
48								
50								
52								
54								
56								
58								
60								
62								
64								
66								
68								
NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE WATER FOUND								



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

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PROJECT NAME: SOUTH DAYTON DUMP AND LANDFILL SITE
 PROJECT NUMBER: 038443
 CLIENT: PRP GROUP
 LOCATION: MORaine, OHIO

HOLE DESIGNATION: BH-08-18
 DATE COMPLETED: 11 May 2018
 DRILLING METHOD: GEOPROBE
 FIELD PERSONNEL: J. CLOSE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	TEMP MONITORING WELL	SAMPLE			
				NUMBER	INTERVAL	REC (%)	'N' VALUE
2	ASPHALT SW-SAND (FILL), little fine gravel, glass, brick, slag, loose, fine to coarse grained, well graded, brown/dark gray, dry - crushed tan brick at 1.0ft BGS - silty sand, gray at 3.3ft BGS	0.25		1GP		65	0.0 / 0.0
4				2GP		35	0.0 / 0.0
6	- crushed red clay brick at 6.0ft BGS			3GP		63	0.0 / 0.0
8		8.50		4GP		70	0.0 / 0.0
10	SW/GW-SAND/GRAVEL (native), loose, fine to coarse sand, fine gravel, well graded, tan/brown, dry			5GP		53	0.0 / 0.0
12				6GP 22-23' NEG SUDAN IV		53	0.0 / 0.0
14				25-26' SLIGHT POS SUDAN IV		53	0.0 / 0.0
16				7GP			
18							
20							
22	- wet at 22.3ft BGS						
24	gray, wet, odor						
26	- dark brown staining at 27.0ft BGS	26.00					
28	END OF BOREHOLE @ 28.0ft BGS	28.00					
30							
32							
34							
<u>NOTES:</u> MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE WATER FOUND							



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

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PROJECT NAME: SOUTH DAYTON DUMP AND LANDFILL SITE
 PROJECT NUMBER: 038443
 CLIENT: PRP GROUP
 LOCATION: MORaine, OHIO

HOLE DESIGNATION: BH-09-18
 DATE COMPLETED: 11 May 2018
 DRILLING METHOD: GEOPROBE
 FIELD PERSONNEL: J. CLOSE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	TEMP MONITORING WELL	SAMPLE			
				NUMBER	INTERVAL	REC (%)	'N' VALUE
2	SW-SAND (FILL), foundry sand, slag, glass, loose, fine to medium grained, well graded, brown, dry			1GP		45	0.0 / 0.0
4	- gray/black at 3.5ft BGS						0.4
6	- medium to coarse grained, slag at 4.5ft BGS						0.0 / 0.0
8							1.0
10	- slag, glass, foundry sand, black at 6.8ft BGS						0.0 / 0.0
12							0.0 / 0.0
14	- increase in silt content at 11.0ft BGS						0.0 / 0.0
16							0.0 / 0.0
18	- perched water from 13.8 to 15.0ft BGS						0.0 / 0.0
20							0.0 / 0.0
22	- rock fragments at 17.5ft BGS						0.0 / 0.0
24							0.0 / 0.0
26	- red clay brick fragments at 19.5ft BGS						0.0 / 0.0
28	- wet at 21.3ft BGS						0.0 / 0.0
30							0.0 / 0.0
32							0.0 / 0.0
34							0.0 / 0.0
<u>NOTES:</u> MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE WATER FOUND							



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

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PROJECT NAME: SOUTH DAYTON DUMP AND LANDFILL SITE
 PROJECT NUMBER: 038443
 CLIENT: PRP GROUP
 LOCATION: MORaine, OHIO

HOLE DESIGNATION: BH-10-18
 DATE COMPLETED: 11 May 2018
 DRILLING METHOD: GEOPROBE
 FIELD PERSONNEL: J. CLOSE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	TEMP MONITORING WELL	SAMPLE			
				NUMBER	INTERVAL	REC (%)	'N' VALUE
2	ASPHALT GW/SW-SAND/GRAVEL (FILL), loose, fine gravel, fine to coarse sand, well graded	0.25		1GP		45	0.0 / 0.0
4	SW-SAND (FILL), trace silt, fine to coarse grained, slightly consolidated, gray, dry	3.30		2GP		25	0.0 / 0.0
6	GM/SM-SILTY GRAVEL/SAND (FILL), consolidated, well graded, medium brown, dry	4.00					
8	SW/GW-SAND/GRAVEL (native), loose, fine to coarse sand, fine gravel, well graded, light brown, dry	8.00		3GP		63	0.0 / 0.0
10	- 2" seam medium to coarse sand, no gravel at 11.4ft BGS			4GP		63	0.0 / 0.0
12				5GP		60	0.0 / 0.0
14				19-20 NEG SUDAN IV			
16				6GP		50	0.0 / 0.0
18							
20	SW-SAND, loose, medium to coarse grained, well graded, brown, wet	19.50	WELL CASING BACKFILLED WITH BENTONITE CHIPS	7GP		45	0.0 / 0.0
22				8GP		60	0.0 / 0.0
24				9GP		100	0.0 / 0.0
26							
28							
30							
32	CL-SILTY CLAY, cohesive, firm, low plasticity, gray, moist	32.70					
34	SW-SAND, some fine gravel, loose, medium to	34.30					1.4
NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE WATER FOUND ↓							



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

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PROJECT NAME: SOUTH DAYTON DUMP AND LANDFILL SITE
PROJECT NUMBER: 038443
CLIENT: PRP GROUP
LOCATION: MORaine, OHIO

HOLE DESIGNATION: BH-10-18
DATE COMPLETED: 11 May 2018
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: J. CLOSE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	TEMP MONITORING WELL	SAMPLE				
				NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)/ RAD
36	coarse grained, well graded, brown, wet							
38								
40	SW-SAND, loose, fine to medium grained, well graded, gray/brown, wet	39.20		10GP	70		0.0 / 0.0	
42	SW/GW-SAND/GRAVEL, loose, medium to coarse sand, fine gravel, well graded, black, wet, strong odor	40.00		39-41' POS SUDAN IV				5.1
44	END OF BOREHOLE @ 44.0ft BGS	44.00		11GP	70		0.0 / 0.0	
46								
48								
50								
52								
54								
56								
58								
60								
62								
64								
66								
68								
NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE WATER FOUND								



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

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PROJECT NAME: SOUTH DAYTON DUMP AND LANDFILL SITE
 PROJECT NUMBER: 038443
 CLIENT: PRP GROUP
 LOCATION: MORaine, OHIO

HOLE DESIGNATION: BH-12-18
 DATE COMPLETED: 18 May 2018
 DRILLING METHOD: GEOPROBE
 FIELD PERSONNEL: J. CLOSE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	TEMP MONITORING WELL	SAMPLE			
				NUMBER	INTERVAL	REC (%)	'N' VALUE PID (ppm)/ RAD
2	SW-SAND (FILL), little fine gravel, loose, medium to coarse grained, well graded, tan/brown, dry SM-SILTY SAND (FILL), fine grained, slightly consolidated, well graded, dark gray, moist	1.60		1GP		58	0.0 / 0.0
4	SW-SAND (FILL), trace silt, loose, medium to coarse grained, well graded, tan/light brown, dry	4.20		2GP		28	0.0 / 0.0
6							
8	ML-SILT (FILL), cohesive, dark brown, moist	7.90					
10	SW-SAND (FILL), trace fine gravel, loose, medium to coarse grained, little fine sand and silt, well graded, tan/light brown, dry	9.00		3GP		45	0.0 / 0.0
12							
14	SW-SAND (native), trace fine gravel, loose, medium to coarse grained, little fine sand and silt, well graded, tan/light brown, dry	14.00		4GP		53	0.0 / 0.0
16							
18							
20							
22	- wet at 22.0ft BGS						
24							
26							
28							
30							
32							
34	- iron staining at 34.0ft BGS						
NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE WATER FOUND							



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

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PROJECT NAME: SOUTH DAYTON DUMP AND LANDFILL SITE
PROJECT NUMBER: 038443
CLIENT: PRP GROUP
LOCATION: MORAINE, OHIO

HOLE DESIGNATION: BH-12-18
DATE COMPLETED: 18 May 2018
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: J. CLOSE



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

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PROJECT NAME: SOUTH DAYTON DUMP AND LANDFILL SITE
PROJECT NUMBER: 038443
CLIENT: PRP GROUP
LOCATION: MORaine, OHIO

HOLE DESIGNATION: BH-13-18
DATE COMPLETED: 18 May 2018
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: J. CLOSE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	TEMP MONITORING WELL	SAMPLE			
				NUMBER	INTERVAL	REC (%)	'N' VALUE PID (ppm)/ RAD
2	TOPSOIL/SILT SW-SAND (FILL), trace fine gravel, loose, medium to coarse grained, well graded, tan/brown, dry	0.25		1GP		50	0.0 / 0.0
4	CL-CLAY (FILL), trace medium to coarse sand and silt, cohesive, dark brown, moist	3.10		2GP		60	0.0 / 0.0
6	SW/GW-SAND/GRAVEL (native), loose, medium to coarse sand, fine gravel, well graded, tan/brown, dry	4.00		3GP		58	0.0 / 0.0
8	SM-SILTY SAND, fine to medium grained, slightly consolidated, well graded, brown, moist	8.00		4GP		28	0.0 / 0.0
10	SW/GW-SAND/GRAVEL, loose, medium to coarse sand, fine gravel, well graded, tan/brown, dry	8.50		5GP 18'-19' NEG SUDAN IV		55	0.0 / 0.0
12				6GP		10	0.0 / 0.0
14				7GP		30	0.0 / 0.0
16				8GP			0.0 / 0.0
18	- wet at 18.5ft BGS			9GP			0.0 / 0.0
20							
22							
24							
26							
28	- iron staining at 27.0ft BGS						
30							
32	- gray at 31.8ft BGS						
34							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

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PROJECT NAME: SOUTH DAYTON DUMP AND LANDFILL SITE
PROJECT NUMBER: 038443
CLIENT: PRP GROUP
LOCATION: MORaine, OHIO

HOLE DESIGNATION: BH-13-18
DATE COMPLETED: 18 May 2018
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: J. CLOSE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	TEMP MONITORING WELL	SAMPLE				
				NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)/ RAD
36								
38								
40	END OF BOREHOLE @ 40.0ft BGS	40.00		10GP				0.0 / 0.0
42								
44								
46								
48								
50								
52								
54								
56								
58								
60								
62								
64								
66								
68								
NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE WATER FOUND ↓								



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

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PROJECT NAME: SOUTH DAYTON DUMP AND LANDFILL SITE
 PROJECT NUMBER: 038443
 CLIENT: PRP GROUP
 LOCATION: MORaine, OHIO

HOLE DESIGNATION: BH-14-18
 DATE COMPLETED: 15 May 2018
 DRILLING METHOD: GEOPROBE
 FIELD PERSONNEL: J. CLOSE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	TEMP MONITORING WELL	SAMPLE			
				NUMBER	INTERVAL	REC (%)	'N' VALUE PID (ppm)/ RAD
2	SW-SAND (FILL), loose, little fine sand, medium to coarse grained, little fine grained, well graded, dark gray/black, dry - concrete fragments at 5.0ft BGS	10.00		1GP		53	0.0 / 0.0
4				2GP		53	0.0 / 0.0
6				3GP		48	0.0 / 0.0
8	- no fine sand, little fine gravel, black at 8.0ft BGS	12.00		4GP		0	0.6
10	NO RECOVERY	15.16		5GP	15-16' NEG SUDAN IV	38	0.0 / 0.0
12	SW-SAND (FILL), little fine gravel, medium to coarse grained, well graded, black, dry	18.70	WELL CASING	6GP		5	NA / NA
14			BACKFILLED WITH BENTONITE CHIPS	7GP		8	1.1
16	- wet at 15.7ft BGS	20.50		8GP		8	0.0 / 0.0
18				9GP		55	0.0 / 0.0
20	SW-SAND (FILL), loose, little fine sand, medium to coarse grained, little fine grained, well graded, dark gray/black, dry	30.30					
22	SW-SAND (FILL), little fine gravel, medium to coarse grained, well graded, black, dry	30.60					
24							
26							
28							
30	SM-SILTY SAND (FILL), fine grained, consolidated, well graded, black, wet						
32	GW/SW-GRAVEL/SAND (native), little silt, fine gravel, medium to coarse sand, well graded, black/brown, wet						
34							
NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE WATER FOUND ↓							



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

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PROJECT NAME: SOUTH DAYTON DUMP AND LANDFILL SITE
PROJECT NUMBER: 038443
CLIENT: PRP GROUP
LOCATION: MORaine, OHIO

HOLE DESIGNATION: BH-14-18
DATE COMPLETED: 15 May 2018
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: J. CLOSE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	TEMP MONITORING WELL	SAMPLE			
				NUMBER	INTERVAL	REC (%)	'N' VALUE
36							
38							
40	END OF BOREHOLE @ 40.0ft BGS	40.00	 STAINLESS STEEL WELL SCREEN	10GP 38-40' NEG SUDAN IV	45		0.0 / 0.0
42							
44							
46							
48							
50							
52							
54							
56							
58							
60							
62							
64							
66							
68							
NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE WATER FOUND							



STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

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PROJECT NAME: SOUTH DAYTON DUMP AND LANDFILL SITE
PROJECT NUMBER: 038443
CLIENT: PRP GROUP
LOCATION: MORaine, OHIO

HOLE DESIGNATION: BH-20-18
DATE COMPLETED: 14 May 2018
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: J. CLOSE

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	TEMP MONITORING WELL	SAMPLE			
				NUMBER	INTERVAL	REC (%)	'N' VALUE
2	SW-SAND (FILL), loose, fine, medium and coarse grained, well graded, black, dry			1GP		63	0.0 / 0.0
4				2GP		50	0.0 / 0.0
6	- increase in silt content at 6.0ft BGS			3GP		40	0.0 / 0.0
8				4GP		0	NA / NA
10	- silty layers, white/iron stained/black from 11.0 to 12.0ft BGS			5GP		15	0.0 / 0.0
12				6GP		30	0.0 / 0.0
14				7GP		30	0.0 / 0.0
16				27-28' NEG SUDAN IV			
18				8GP		35	0.0 / 0.0
20							
22							
24							
26							
28	GW/SW-GRAVEL/SAND (native), trace silt, loose, fine gravel, medium to coarse sand, trace fine sand, well graded, tan/brown, wet	27.30	WELL DETAILS Screened interval: 27.30 to 31.30ft BGS Length: 4ft Material: STAINLESS STEEL				
30	END OF BOREHOLE @ 32.0ft BGS	32.00					
32							
34							
NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE WATER FOUND							